

Missouri Strategic Planning

Model and Guidelines



MARCH 2002

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INTRODUCTION

Missouri's Managing for Results initiative is a management tool to help keep government focused on results and to drive meaningful improvements for citizens. The Managing for Results effort encourages strategic planning and innovation and recognizes the need for agencies to work together on high priority results. Through planning and its link to the budgeting process, the state has seen increased accountability and a greater emphasis on benefits and results rather than activities and workload.

Missouri's strategic planning process began in 1995 with former Governor Carnahan's Commission on Management and Productivity (COMAP) Order 94-04. This process has been reaffirmed by Governor Holden's Executive Order 01-19, which emphasizes the importance of strategic planning and performance measures in guiding state agency activities.

The *Missouri Strategic Planning Model and Guidelines* has been developed by the Interagency Planning Council to foster and assist state agencies in the use of a common strategic planning model that includes shared terminology and action calendars. These guidelines include:

- Governor Holden's Executive Order 01-19
- The principles guiding Missouri's strategic planning process
- The strategic planning model and a description of the model elements
- Examples of the strategic planning elements (*Note:* Examples presented in this document are based on current and historical state agency plans.)
- The format for the strategic plan executive summary
- Information about system improvement projects and plans
- The time line of the strategic planning process
- A glossary of strategic planning terms

EXECUTIVE ORDER 01-19

WHEREAS, Missourians are entitled to a government that:

Measures and reports on its part in achieving measurable improvements Missourians desire in the quality of life in their state and communities;

Improves performance of its existing operations in an effective, efficient, and economical manner in order to achieve the best return on taxpayer dollars;

Implements policy innovations based on sound research and data and their impact on the priority goals of Missourians;

Provides full accountability for performance to state legislators, other elected officials, and those responsible for allocating the resources devoted to achieving priority goals;

Responds to the needs of the people who receive services funded by taxpayer dollars;

Involves front-line public sector employees and partners, community leaders, citizens, and academic institutions in designing both performance improvements and policy innovations; and

Promotes collaboration between and among those state agencies and other organizations that contribute to achieving the results desired by Missourians.

NOW, THEREFORE, I, Bob Holden, Governor of the State of Missouri, by virtue of the authority vested in me by the Constitution and the Laws of the State of Missouri, do hereby direct the executive branch to manage for results. Managing for results include performance-improvement and efficiency efforts, strategic planning for policy innovation, and the use of performance measures in state decision-making.

I further establish an Executive Team to oversee the state's efforts to manage for results. The Executive Team shall create an ongoing process to identify, select, and pursue policy and performance improvement opportunities in state government functions and activities. The Executive Team shall oversee efforts to support executive branch agencies in achieving results through performance improvement and policy innovation.

The Executive Team shall be composed of:

- The Governor;
- The Lieutenant Governor;
- The Commissioner of Administration;
- The Director of the Division of Budget and Planning in the Office of Administration;
- and
- Others as determined by the Governor.

The Executive Team shall ensure the development and implementation of a reporting system to enhance accountability to the state legislature and the public for efforts undertaken as part of this initiative. The Executive Team shall report twice a year to the Governor and the General Assembly on the status of efforts to manage for results, including the performance of these efforts in the areas of cost reduction, performance improvement, and policy innovation.

The members of the Executive Team shall serve at the pleasure of the Governor and shall serve without compensation, except that Executive Team members may be reimbursed for reasonable and necessary expenses arising from the Executive Team's activity or business.

In order to manage for results, all state agencies will be required to work cooperatively among themselves, and with community organizations and citizens to achieve better results. The Executive Team will determine necessary structure, membership, and charters for interagency policy teams or work groups.

As part of this effort, all state agencies will be expected to strive for Baldrige-award levels of performance excellence in leadership, strategic planning, customer focus, fact-based management, employee productivity and satisfaction, efficient and effective process management, and focusing on results.

Strategic planning and performance measures will be the basis of program implementation and the allocation of state resources. The planning and budgeting processes shall be linked so as to increase accountability by placing greater emphasis on benefits and results rather than activities and workload.

As a component of managing for results, I also recreate and re-establish the Interagency Planning Council, originally established under COMAP Order 94-04. The Interagency Planning Council will provide leadership in implementing the integrated strategic planning process in the executive branch and coordinate with the legislature to ensure that strategic plans and appropriate performance measures are the basis for appropriation requests by state agencies.

The Interagency Planning Council shall:

- Assist the departments by promoting the use and refinement of the strategic planning model;
- Facilitate effective coordination and integration of departmental responses to issues that cross organizational boundaries; and
- Serve as a clearinghouse for the departments by providing technical assistance, advice, and training in the area of strategic planning and development of and use of performance measures.

The Interagency Planning Council shall consist of not less than twenty members. The Governor will designate the co-chairs.

- One member shall be appointed from each of the sixteen executive departments;
- The Speaker of the House and the House Minority Leader shall each appoint one member of the House staff;

- The President Pro Tem of the Senate and the Senate Minority Leader shall each appoint one member of the Senate Appropriations or Research staff;
- One member shall represent the Division of Budget and Planning in the Office of Administration;
- One member shall be appointed from the Office of the Governor; and
- Such others members as the Governor may designate.

The members of the Interagency Planning Council shall serve at the pleasure of the Governor and shall serve without compensation, except that Council members may be reimbursed for reasonable and necessary expenses arising from the Council's activity or business.

Through this executive order, the following orders are hereby rescinded:

Executive Order 93-47, which established the Commission on Management and Productivity (COMAP);
 COMAP Implementation Order 94-04, which established the previous manifestation of the Interagency Planning Council;
 COMAP Implementation Order 95-01, which established the Excellence in Customer Service Oversight Team; and
 COMAP Implementation Order 95-05 and Executive Order 00-23, which established the Council on Efficient Operations.

This order shall expire on December 31, 2004, unless renewed by Executive Order prior to that date.

IN WITNESS WHEREOF, I have hereunto set my hand and caused to be affixed the Great Seal of the State of Missouri, in the City of Jefferson, on this 19th day of November, 2001.

BOB HOLDEN
GOVERNOR

PRINCIPLES

Strategic planning in state government is guided by the following principles:

- Strategic planning is an ongoing process, with short-term and long-term benefits, requiring sustained state agency effort and commitment.
- Strategic planning provides a systematic way to review state agency programs, and directs agency budget and legislative priorities in the annual legislative process.
- Strategic planning requires state agencies to use a common planning model, with common terminology and action calendars, working cooperatively with one another toward shared outcomes. However, recognizing the differences in size, administrative capability, statutory authority and stakeholder involvement, each agency must have the flexibility to tailor planning methods and approaches to meet the individual needs of the agency.
- Strategic planning in state government is customer-focused. Customers and customer expectations are clearly identified by state agencies, and considered as critical elements in the planning process. Missouri citizens are an important part of each agency's customer base.
- The success of strategic planning can be evaluated by progress toward achievement of outcomes and objectives. Strategic plans delineate these outcomes and objectives and provide methods for tracking progress in achieving these measures.

PRIORITY RESULTS

BORN HEALTHY AND ENTER SCHOOL READY TO LEARN

RESULTS:

Increased percentage of births resulting in healthy birth-weight babies

Increased percentage of children prepared for kindergarten

SUCCEED IN SCHOOL

RESULTS:

Increased percentage of students scoring proficient or higher on MAP tests

Increased percentage of 18-year-olds with a high school diploma or GED

ACHIEVE FAMILY, FINANCIAL AND JOB SECURITY

RESULTS:

Increased level of median household incomes

Decreased rate of unemployment

ENJOY A LONG, HEALTHY LIFE

RESULTS:

Decreased impact of chronic diseases

Increased life expectancy

LIVE IN A SAFE, SECURE MISSOURI

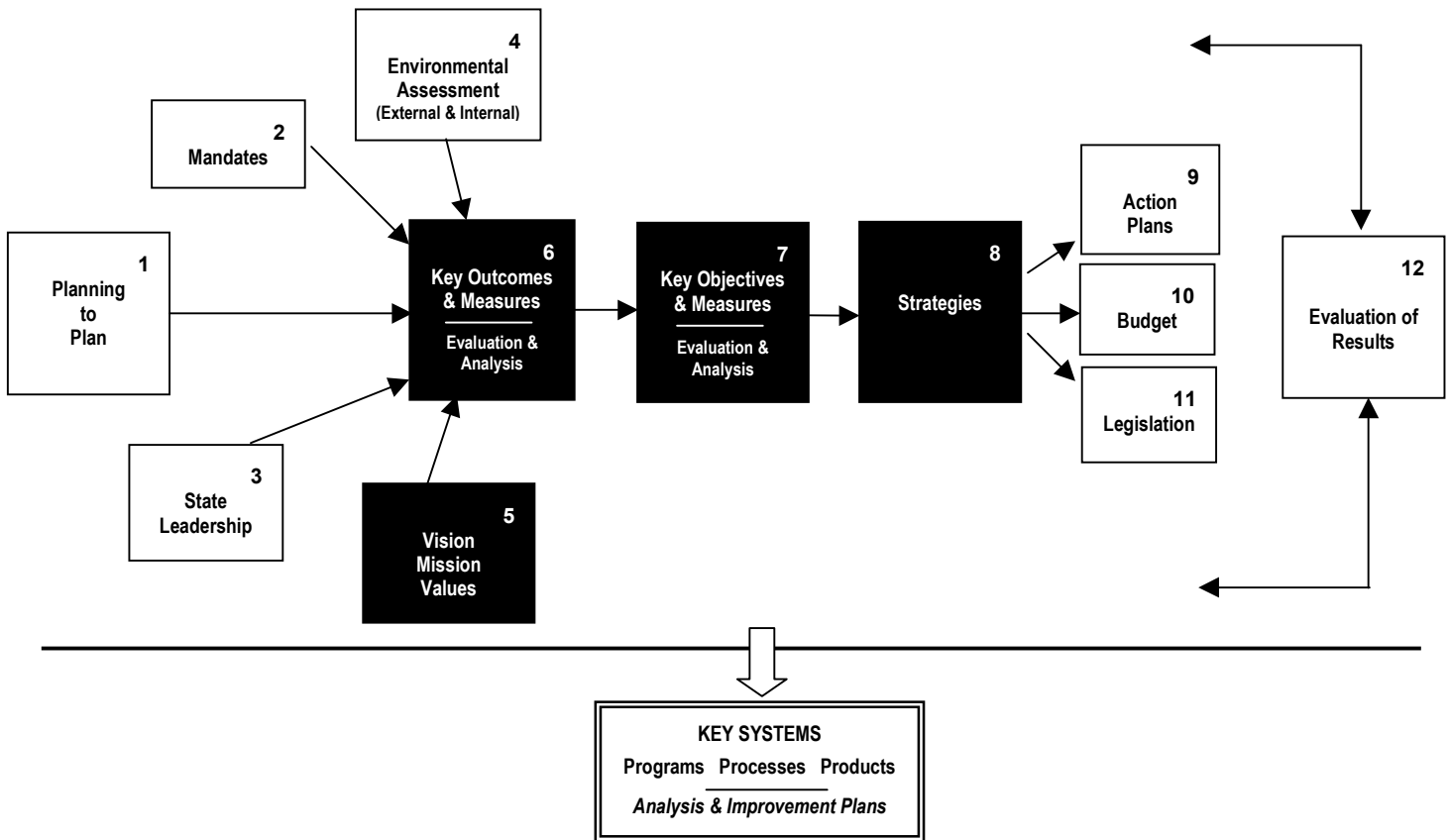
RESULTS:

Decreased rates of crimes against persons

Decreased rates of crimes against property

NOTE: Success predictors are being developed for each of the priority results.

STRATEGIC PLANNING MODEL & GUIDELINES



Executive branch agencies plan for three to five years into the future. They conduct thorough annual reviews of their plans to determine what modifications might be needed in response to environmental changes such as legislative mandates and changing customer expectations/needs. Such modifications keep the agency's plan dynamic and responsive to the citizens.

The model outlined above is used by agencies to develop their strategic plans. The model and the associated guidelines are based on a common calendar and common terms, while allowing flexibility within each step to accommodate internal organizational differences. The steps are described briefly below and discussed in more detail on the following pages. The shaded boxes (steps 5-8 above) indicate information that must be presented in agency strategic plans. An explanation of key systems and key system improvement plans can be found on pages 32-44.

- **Planning to Plan:** This first step represents the advance work necessary before the actual planning process can begin. In this step, each agency agrees internally on the overall strategic planning effort and on key planning steps to be undertaken.

- **Mandates:** Each agency is influenced by constitutional and/or legislative mandates. At an early stage in the process, agencies should review and evaluate the role and significance of these mandates as they pertain to day-to-day business and future activities.
- **State Leadership:** By identifying and promoting a vision for the state's future and outlining broad results important to Missouri citizens, state leadership provides critical guidance to agencies as they set their strategic priorities and direction.
- **Environmental Assessment (External and Internal):** External and internal assessment is an evaluation of key factors that influence the agency. Detailed evaluation of trends, conditions, opportunities and obstacles directs the development of each element of the strategic plan. This type of assessment may be quantitative or qualitative in nature.
- **Vision, Mission and Values:** Determining the agency vision, mission and values is critical to establishing the scope and direction of agency activities.
- **Key Outcomes/Measures:** Outcomes are end points or public benefits that are important to citizens and agencies and for which a level of success can be determined. Outcome measures are quantifiable information that indicates the degree to which the desired outcomes are being achieved.
- **Key Objectives/Measures:** Objectives are specific targets for improved performance designed to indicate the success or impact of a program or approach. An agency's business operations are determined through objectives (what level of success does an agency want to achieve) and strategies. Objective measures are quantifiable information that addresses whether or not program activities are achieving the desired objectives.
- **Strategies:** Strategies explain how the agency's objectives will be accomplished. Allocation of resources (budgeting) and quantification of services and products (outputs) are tied to implementation of strategies.
- **Action Plans:** Action plans describe how strategies will be implemented and, specifically, who is responsible for doing what and when tasks will be completed.
- **Budget:** State agency planning and budgeting processes are linked in the "Program Decision Item Analysis - Form 5," which state agencies prepare for each item (core and new) in their annual budget requests.
- **Legislation:** Legislation may result from an agency's strategic planning process, often providing authorization for needed programs or defining the scope of agency responsibility in addressing a critical issue. Legislation also can take the form of a new mandate, which must be assessed at the outset of the planning process and incorporated into an agency's plan.
- **Evaluation of Results:** Agencies evaluate their outcome and objective measures and strategies annually, or more frequently if data collection cycles permit, to track progress toward key outcomes and objectives. In the evaluation process, agencies assess the effectiveness and efficiency of their operations and make adjustments in strategic plans, use of resources, and operating procedures to improve results.

PLANNING TO PLAN: Description of how the agency will develop its strategic plan

A well thought-out and organized plan-to-plan is critical to development of an agency's strategic plan. Top management's commitment to strategic management and the planning process must be communicated. The major steps or tasks in development of the plan need to be outlined, including a time line for completion. Decisions must be made about who will be included in the process and at what point they will become involved. Participants in the planning process must understand the purposes, philosophies, methods and expected benefits of strategic planning.

There is a logical order to the elements in the strategic planning process. Generally, planners must complete one element before moving to the next, even though they may occasionally move back and forth among elements and make modifications to earlier steps.

The strategic planning process must involve individuals who are relevant to the planning process and who can assist in the development of agency plans. Improvements in effectiveness, decision making, teamwork and quality all depend on achieving a high level of ownership; the people who implement the plan must feel it is their plan.

It is important that individuals involved in developing an agency's strategic plan have the resources necessary for each step in the process (e.g. customer satisfaction and performance measure data).

An ineffective plan-to-plan will cause the process to falter. Participants will discover they have insufficient information to make key decisions, or they will find that key people are not participating in the decision making process.

Criteria for Planning to Plan

An effective plan-to-plan will

- Articulate top management's commitment to the strategic management process.
- List the people who will contribute to each step of the process.
- Outline the major steps or tasks in the strategic planning process.
- Set the sequence and timetable of events.
- Identify strategic planning barriers and ways to overcome them.

PLANNING MODEL

➤ Planning to Plan

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MANDATES: Authorization or command to implement policy flowing from state and federal statutes

Mandates prescribe what must be done under public policy, federal regulations, state regulations, or some combination of the foregoing. In order to set the course for the future of the agency, mandates need to be considered as either authorization for or constraints on how agencies can achieve their objectives. The agency's budget is a major constraint that must be considered in the strategic plan.

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➤ **State Leadership**

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A clear understanding of the mandates confronting the agency and their implications for action and resources will be invaluable as agencies engage in planning. A cautious approach is advisable, with care taken not to overemphasize one aspect of agency mandates at the expense of others.

STATE LEADERSHIP: Priority results

State leadership provides critical guidance to agencies as they set their strategic priorities and direction. Leadership does this through identifying and promoting a vision for the state's future and outlining broad results important to Missouri citizens. These priority results should guide state agency strategic planning and be reflected in agency outcomes, objectives, and strategies. Priority results establish a common purpose for all state agencies and foster interagency collaboration and cooperation resulting in enhanced agency performance and significant improvement on high priority results.

Governor Holden has developed a list of priority results that outline his vision for Missourians. These results should guide state agency strategic planning and lead to enhanced interagency planning around these priorities. Governor Holden's priority results are included on page 8.

ENVIRONMENTAL ASSESSMENT: An appraisal of the capabilities, resources, constraints, opportunities, problems and needs of the agency and its customers

External and internal assessment sets the stage for the agency's strategic planning process. The purpose of the assessment is to facilitate the agency's recognition of current and future issues that may affect agency operations and results. The external and internal assessment should be an ongoing process that is critical to the development of each element of the strategic plan.

Prior to the development of agency key outcomes, objectives and strategies, a thorough analysis should be conducted of the agency's current position and expectations for internal and external change. External and internal assessment should address all factors affecting the agency, including strengths, weaknesses, opportunities, threats, and customer expectations.

The internal and external assessment may include the following information:

1. Identification and description of customers and stakeholders;
2. An analysis of current agency resources for meeting current needs and expected future needs, and a broad summary of additional resources necessary to meet future needs;
3. An analysis of expected changes in services provided by the agency due to changes in state or federal law;
4. A broad summary of the capital improvement needs of the agency during the period covered by the plan, and a prioritizing of those needs.

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The external and internal assessments address economic, political, technological, demographic, and social factors affecting the organization in order to determine how well the agency has met its external challenges. A complete assessment of such factors encompasses both historical and future perspectives with reviews of past performance and forecasts of trends in the agency environment. The assessments should provide a forecast discussion of annual performance on the agency's outcome measures, objective measures, and other indicators that are expected to have significant impact on the agency's programs for the period of the strategic plan. As part of the assessment process, agencies are strongly encouraged to solicit comments from individuals and groups (customers and stakeholders) that have an interest in or are affected by agency policies and programs.

External Assessment

An external assessment should address the following questions:

1. What are the agency's target populations and what changes, if any, are anticipated within the strategic planning period? What is the level of customer demand and public need for the agency's products or services? What are the most significant indicators of customer demand and public need? What trends have been identified?
2. What major issues, conditions, or problems in the external environment are relevant to the delivery of the agency's goods and services? What conditions could affect or alter key elements of the environment? What implications do specific environmental changes hold for the agency, such as changes in state or federal law? What relationships exist between the agency's programs, programs in other agencies, and statewide initiatives with related target populations? What opportunities exist for improving coordination or eliminating duplication between programs and among agencies?
3. What strengths, weaknesses, opportunities, or threats characterize external relationships? What opportunities are available that have not been previously explored?
4. What progress has been made by the agency toward achievement of key outcomes and objectives depicted in the agency's current strategic plan?

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Internal Assessment

The internal assessment should address the following questions:

1. How successful are internal agency processes, products, and services for meeting the needs of the target populations and other agency customers? In what ways has the agency grown, remained the same, or changed internally, and why? What are its internal accomplishments? What has failed to be accomplished internally and why?
2. What is the public's perception of the quality of products and services? What is being done well? What is being done poorly? How do products and services and internal processes compare to recognized standards for program accreditation or to evaluation criteria? Do programs and activities support one another, or is there conflict or duplication among them?
3. What programs or activities are expected to grow or decline, and how has the agency planned to accommodate those changes? What are the agency's current and anticipated resource needs? What strengths, weaknesses, opportunities, or threats characterize internal operations?

Factors That May Be Included in Internal and External Assessments

The external and internal assessment is an ongoing evaluative tool for analyzing what the agency has accomplished in the past and where it needs to head in the future. The assessment may be quantitative or qualitative in nature and should be used in annual reviews of the agency's implementation of its strategic plan.

External Factors	Internal Factors
economic conditions	management policies
population shifts	resource constraints
technological advances	organizational structure
geographical changes	automation
statutory changes	personnel
political climate	operational procedures
governmental regulations	communication patterns
changing family and consumer dynamics	organizational values and philosophies
competitor organizations	core functions
environmental issues	mandated services/programs

VISION: Description of the ideal, future state of the organization or program

A vision defines the agency's sense of future direction and provides some rationale for why the agency should be doing what it is doing. The vision should inspire action and achievement among agency staff, with the primary activities of agency employees directed toward the vision.

Example Vision Statements

Department of Mental Health: "Lives Beyond Limitations: Missourians shall be free to live their lives and pursue their dreams beyond the limitations of mental illness, developmental disabilities, and alcohol and other drug abuse."

Department of Corrections: "In partnership with all Missourians, we create safer communities through a balanced correctional system of prison and community based sanctions."

Department of Agriculture: "To be a leader of a dynamic, sustainable, prosperous agriculture."

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MISSION: A statement of the agency purpose and reason for being

The mission statement provides the basis for determining the general direction of the agency, the business of the agency, the products provided to agency customers, and the focus needed among agency employees. To properly develop a mission statement, the agency should analyze the needs of its customers and stakeholders, including the public, the legislature, and others who

may receive the agency's products and services. Attention to customer and stakeholder concerns is crucial because the key to success for public agencies is the ability to satisfy the needs of those who consume agency services and products.

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The mission statement is an invaluable tool in directing, planning, and implementing agency efforts. It provides the basis for future action. The mission 1) reveals the image the organization seeks to project, 2) reflects the organization's self-concept, 3) indicates the principal services or products provided, and 4) identifies the primary customer needs that the agency attempts to satisfy. That is, the mission describes products or services and customers. An agency's mission is rarely changed, and it provides the ultimate rationale for the existence of the agency.

Criteria for Mission Statements

An effective mission statement will

- Identify the overall purpose for the existence of the agency as established in statute, session law (e.g., appropriations bill), executive order, or administrative rules;
- Identify the basic needs or distinct problems that the agency is designed to address;
- Identify customers (both internal and external) of the agency; and
- Help identify customer requirements and services/products/processes/resources provided by the agency to satisfy these requirements.

Questions for Evaluating Mission Statements

Answers to the following questions can help agencies evaluate their mission statements:

- Is it clear and understandable to all personnel, including rank and file employees?
- Is it brief enough for most people to keep it in mind?
- Does it clearly specify what business the agency is in?
- Is it broad enough to allow flexibility in implementation, but not so broad as to permit a lack of focus?

One purpose of a mission statement is to provide those who are unfamiliar with the agency a general understanding of its overall purpose, of the basic needs that it addresses, and of the customer base the agency serves.

Example Mission Statements

Department of Conservation: “To protect and manage the fish, forest, and wildlife resources of the state; serve the public and facilitate their participation in resource management activities; and provide opportunity for all citizens to use, enjoy, and learn about fish, forest, and wildlife resources.”

Department of Health: “The Missouri Department of Health is responsible for protecting and promoting the health of Missourians by assessing health status and needs, developing policies and priorities, and assuring that the state is responding appropriately.”

VALUES: The principles of the agency—what it stands for and believes in

Values represent the fundamental principles and philosophy of the agency and guide the agency’s behavior. Values articulate basic management policies and might include such topics as respect for individuals (customers and employees), ethical and professional standards, and quality services. Values are common beliefs that can be embraced by the entire agency; they can be powerful instruments for changing organizational culture and motivating employees.

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Criteria for Expressing Values

Value statements express the organization’s philosophy about three things:

People - the way customers should be treated and the conditions under which employees can be highly productive;

Process - the way in which the organization is managed, decisions are made, and products or services are provided; and

Performance - expectations concerning the organization’s responsibilities and the quality of its products and services.

Summary

There is a great deal of leeway in the articulation of an organization’s values. Length and format may vary. Sometimes values are expressed in terms of responsibilities—an agency’s responsibilities to its customers, its employees, its environment (the community in which it operates or the physical environment as a whole), and its stakeholders. In other cases, values are expressed in terms of the quality of management, products and services.

Example Values Statements

Office of Administration: “We are proud of our leadership role in providing effective and responsible government to the citizens of the State of Missouri. We will perform our responsibilities with integrity and professionalism. We will be responsive to the needs of our customers. We recognize the importance of personal growth and organizational development and will seek ways of constantly extending our capabilities. We value the diversity of our workforce and will continue our efforts of recruitment, promotion, and retention toward this goal.”

Department of Elementary and Secondary Education: “We promise to greatly exceed customers’ expectations. We listen to those we serve in order to improve our operations and adapt to changing needs. We forge partnerships to improve our services. We value each employee’s contribution to achieving the mission.”

Department of Public Safety: “We believe every person should be treated with honesty, respect, and courtesy. We believe our employees should be professional, ethical, compassionate, and caring. We believe our employees’ integrity and values must be above reproach. We believe services should be delivered responsibly and in a manner that maximizes allotted resources. We believe in developing partnerships with other agencies and the community to enhance quality of life and public safety. We believe in accountability, and cherish the trust the citizens of Missouri have placed in us. We believe in law and order, and accept the responsibilities associated with its enforcement.

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OUTCOMES: What are the results or benefits for the public?

Outcomes are end points or public benefit results for which a level of success can be determined. Outcomes reflect a condition of well being for children, adults, families, or communities or in the natural environment. Outcomes can also reflect responsible, results-focused, and effective government.

Outcomes are about the fundamental interest of citizens and the fundamental purposes of government. Outcomes, by definition, are not usually “owned” by any single agency or system. They often cross agency and program lines, and public and private sectors.

In general, agencies should try to limit the outcomes in their strategic plans to the **3-5 key outcomes** that are the most important to the agency and have the greatest impact on the public. By focusing on only the most key outcomes, agencies will be able to more effectively plan around and drive significant improvement in their highest priorities.

Questions for Developing Outcomes

- What is the desired result for the prosperity, safety, health, or quality of life for individuals, families, or communities?
- What economic, social, environmental, or other conditions do the agency's efforts impact or influence?
- What public good is the agency trying to achieve?

Criteria for Outcomes

- Outcomes are valued by the public, government leaders, and the organization.
- Outcomes are distinct from objectives and strategies. Outcomes address ultimate public benefit results rather than internal activities (strategies) or the success of those strategies (objectives).
- Outcomes specifically state the desired result.
- Outcomes are measurable.
- Outcomes use non-technical, simple, concise language.

Ways to Identify Key Outcomes

- Analyze the agency's outcomes to determine their importance. Which outcomes have the largest impact on the most people and are most critical to the agency and its operations?
- Survey key managers/stakeholders and ask them to prioritize the agency's outcomes.

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Example Key Outcomes

Department of Mental Health: "Reduced rate of suicide in Missouri."

Department of Insurance: "Increased percentage of Missourians with health insurance."

Additional Examples of Outcomes

- Decreased rate of infant mortality
- Decreased percentage of seniors and persons with disabilities who are abused, neglected, or exploited
- Increased number of jobs paying greater than \$10/hour
- Decreased percentage of Missourians obtaining public income support
- Increased number of stream miles and lake acres that are safe and usable for drinking, swimming, fishing, and watering livestock
- Decreased number of job-related accidents, illnesses, and fatalities
- Increased percentage of total taxes owed that are voluntarily paid by date originally due
- Increased percentage of minority employees in upper-level salary ranges in state government

OUTCOME MEASURES: How will achievement of the outcomes be measured?

Outcome measures are quantifiable information that indicates the degree to which the desired outcomes are being achieved. For some outcomes, there is one clear and distinct outcome measure. For other outcomes, multiple measures are needed to fully indicate the degree to which the outcome is being achieved. As with outcomes, it is important for agencies to focus on only the most key outcome measures.

Questions for Reviewing Outcome Measures

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- Is the outcome measure reliable? Does it consistently produce accurate and verifiable information?
- Is the outcome measure valid? Does it capture what is intended to be measured?
- Does the outcome measure reflect how well Missouri is doing on the specific outcome itself rather than how well Missouri is doing on factors contributing to that outcome?
- Is the measure of sufficient value to justify the cost of producing the necessary data? In the case of excessive costs, review the methodology to determine if sampling techniques or other more cost-effective alternatives could be used to collect the data.

Analysis of the Outcome Measures

In order for the agency to choose the most effective objectives and strategies and make significant improvements in the outcome measure, it is critical to first analyze the outcome measure to understand what is driving it. For example, the agency needs to understand the trend of the base line data, the major factors influencing the measure, and if there are any best practices that have been successfully adopted by other states. The following outline can be used to analyze agency outcome measures. This outline is meant to be flexible—the order and elements in this outline can and should be modified based on the specific outcome measure being analyzed.

- **Chart the Outcome Measure:** When analyzing the outcome measure, it is useful to chart the measure showing base line and comparative data if available.
- **Why the Outcome Measure Is Important:** Explain why this outcome measure was chosen—why it is important to the agency and what impact it has on the public.
- **Trend Analysis:** Discuss what an analysis of the base line data reveals. Explain movements in the base line data.
- **How Missouri Compares to Others:** Compare the agency's base line data to national, state, or regional data.

- **Factors Influencing the Outcome Measure:** Explain what internal or external factors have or could have an influence on the measure.
- **What Works:** Identify what activities, approaches, initiatives are having the greatest impact on the outcome measure. Successful approaches should be supported by empirical data.
- **Concerns:** Explain what in the current or future environment may have a negative impact on the outcome measure.
- **Other Sources of Information:** List other sources of information that will assist in understanding the outcome measure.
- **Data Table:** It is helpful not only to chart the data graphically, but also to include a data table.
- **Description of Measure:** It is important to document specifically how an outcome is measured and the data source.

Example Outcome Measures

Department of Mental Health: “Rate of suicides per 100,000 Missourians”

Department of Insurance: “Percentage of Missourians with health insurance”

OBJECTIVES: What is the success or impact of agency programs or approaches?

Objectives are specific targets for improved performance derived from an agency’s outcomes. In contrast to outcomes (which are desired benefits for the public), objectives are more closely aligned with the success or impact of programs or approaches. Thus, objectives represent milestones or intermediate achievements necessary to realize outcomes.

Objectives are concise directional statements (**to increase, to maintain, to decrease**) of what will be accomplished (specificity), how much will be accomplished (quantity), when it will be completed (deadline), and by which organizational unit (responsibility).

In general, agencies should try to limit the objectives in their strategic plans to the **6-10 key objectives** that have the greatest impact on the key outcomes. One to two objectives for each outcome are suggested. By focusing on only the most key objectives, agencies will be able to more effectively plan around and drive significant improvement in their highest priorities.

Questions for Developing Objectives

- How many (or what proportion of) clients or customers showed improvement in well-being?

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- What risk factors were reduced?
- What behaviors—individual, institutional, or community—changed, and by how much?
- How *successful* were the strategies?
- To what extent were the needs and demands of clients and customers met?
- What was the level of compliance with standards or regulations?
- How efficient were the agency’s operations, activities, programs, and methods?

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Criteria for Objectives

Good objectives will be **SMART**. That is, they will be—

- **Specific:** Objectives should reflect the specific accomplishment desired, not ways to achieve them. All objectives should be capable of generating specific strategies or actions. An objective should also be detailed enough to be understandable.
- **Measurable:** An objective must be measurable to determine when it has been achieved. Measurement helps track progress and will be useful in evaluating the accomplishments of an agency or program during the evaluation process. Accountability is essential if the planning process is to be an effective management tool.
- **Aggressive but Attainable:** If objectives are to be standards for achievement, they should challenge, but should not demand the impossible. Objectives should be realistic and attainable.
- **Result-oriented:** Objectives should specify progress toward the stated outcome, representing an *accomplishment*, not just an activity. An example of an objective would be, “Increase from 70 to 75 percent (from 252 to 270) the number of mines meeting or exceeding the air, water, noise, and health standards by the end of Fiscal Year 2003.” An example of an activity would be, “To increase the number of miners receiving training.”
- **Time-bound:** Objectives should specify a time frame for accomplishment. Each objective should be attainable within a relatively short time period (from a few months to no more than three years). Objectives that would take longer to achieve are generally more manageable and better integrated with the budget process if they are divided into smaller pieces to coincide with the fiscal year.

Summary

The real art of setting objectives is to create challenging but achievable targets. The best objectives are those that stretch the capacities of people and programs but are, nonetheless, possible. This not only results in genuine improvement in programs and services (or the issues they address) but also builds employee pride and confidence. Unattainable performance targets, on the other hand, discourage initiative and stifle innovation.

There are many ways to target improved agency performance. The strongest strategic plans will have a variety of different types of objectives (improvement in client well-being, reduction in risk factors, change in behavior, success of approaches/interventions, success in a targeted population, customer satisfaction, etc.)

Example Objectives

Department of Transportation and Department of Public Safety: “To increase from 68 percent to 85 percent (from 3,718,920 to 4,648,650) the number of Missourians wearing seat belts by January 2004.”

Department of Economic Development and other partners in the workforce development system: “From 2002 to 2003, to increase by 10 percent (from 46,000 to 50,600) the number of people moving from below to above the poverty line after completion of services provided by the workforce development system.”

Additional Examples of Objectives

- To increase the number of low-income children with health care coverage from 82.8% in 1997 (724,606) to 91.5% by FY 2003.
- To increase to 80% (419) the number of school districts that meet the Missouri School Improvement Program performance standards at the “accredited” level by the end of the 2003-2004 school year.
- To increase the number of Temporary Assistance participants leaving the program due to work activity from 832 (20.7%) in FY 2003 to 1,129 (35.7%) by FY 2004.
- To decrease from 51.3 percent (1997) to 46.3 percent the use of alcohol (binge drinking) among high school seniors by June 30, 2004.
- By FY 2003, to decrease from 5 to 4 the average number of days to receive an income tax refund when the return is filed before April 15.
- To attain 10% Minority Business Enterprise and 5% Women Business Enterprise expenditures of total operating expenditures for the Department of Public Safety by June 30, 2004.

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OBJECTIVE MEASURES: How will achievement of the objectives be measured?

Objective measures are quantifiable information that addresses whether or not program activities are achieving the desired objectives, which in turn produce the desired outcomes for the people or objects served by the program.

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Objective measures are often mistaken for outcome measures. Outcome measures assess the results or benefits for the public. **Objective measures assess the effectiveness of activities** aimed at producing the outcomes.

Objectives measures also differ from output measures. Although outputs are also at the program level, they designate how much work a program does rather than whether or not a program is achieving its desired objectives. An output is simply the quantity of products or services delivered by an agency, i.e., output relates to process. Outputs are a part of an agency's budget request; they are not a part of its strategic plan.

As with objectives, it is important for agencies to focus on only the most key objective measures.

Analysis of the Objective Measure

In order for the agency to choose the most effective strategies and make significant improvements in the objective measure, it is critical to first analyze the objective measure to understand what is driving it. For example, the agency needs to understand the trend of the base line data, the major factors influencing the measure, and if there are any model practices that have been successfully adopted by other states. The following outline can be used to analyze agency objective measures. This outline is meant to be flexible—the order and elements in this outline can and should be modified based on the specific objective measure being analyzed.

- **Chart the Objective Measure:** When analyzing the objective measure, it is useful to chart the measure showing base line and comparative data if available.
- **Why the Objective Measure Is Important:** Explain why this objective measure was chosen—why it will have a significant impact on the key outcome.
- **Trend Analysis:** Discuss what an analysis of the base line data reveals. Explain movements in the base line data.
- **How Missouri Compares to Others:** Compare the agency's base line data to national, state, or regional data.
- **Factors Influencing the Measure:** Explain what internal or external factors have or could have an influence on the measure.

- **What Works:** Identify what activities, approaches, or initiatives are having the greatest impact on the objective measure. Successful approaches should be supported by empirical data.
- **Concerns:** Explain what in the current or future environment may have a negative impact on the objective measure.
- **Other Sources of Information:** List other sources of information that will assist in understanding the objective measure.
- **Data Table:** It is helpful not only to chart the data graphically, but also to include a data table.
- **Description of Measure:** It is important to document specifically how an objective is measured and the data source.

Example Objective Measures

Missouri Department of Transportation and Department of Public Safety: “Percentage of Missourians wearing seatbelts.”

Department of Economic Development and other partners in the workforce development system: “Number of people moving from below to above the poverty line after completion of services provided by the workforce development system.”

STRATEGIES: What actions will need to be taken to accomplish the objective?

Strategies are narrative statements of an approach to achieve an objective.

Strategies are specific courses of action that will be undertaken by the agency to accomplish its objectives. A strategy outlines tasks and indicates how the particular objective or set of objectives will be achieved. In contrast, objectives indicate the success of those strategies.

To develop strategies, the agency determines how best to achieve the results intended by the objectives. More than one strategy may be needed for accomplishing each objective. Conversely, one strategy could address more than one objective. In choosing strategies, the costs, benefits, and anticipated consequences of alternative courses of action must be evaluated by the agency. Strategies may (and probably will) cross program, activity, or agency lines.

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Criteria for Strategies

Before a decision is made to implement a particular strategy, alternatives must be weighed:

- Strategy implementation should contribute to objective attainment. There should be a clear link between the actions taken and results achieved.
- Alternative strategies should be evaluated based on their anticipated costs and benefits to the agency's customers.
- A particular strategy should be evaluated based on its positive or negative impact on other objectives. Is it dependent upon or does it affect the successful implementation of any other objective?

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- Strategies should be assessed based on whether the agency has the authority and the resources needed to take the action proposed. If the agency lacks authority or resources for an action, strategies should work to obtain authorization and/or resources, keeping in mind reallocation within the agency as a viable alternative.
- An assessment of the organization's capacity to implement a course of action should be conducted. What must be changed (rules, procedures or skills) to implement the strategy?
- How long will implementation of this course of action take? What are the steps necessary to implement this course of action and how long will each step take?

Questions to Consider During and After a Strategy Is Developed

Is the strategy understandable by those responsible for its implementation?

Can the strategy be accomplished in the given time period?

Can the strategy be accomplished with the given budget?

Is the result of the strategy wanted and supported by the state/county/city?

Does the department have the authority to carry out the strategy?

Can the strategy be evaluated?

Does the strategy enhance other state or federal activities?

Does the strategy fill a gap in services/products not currently being addressed?

Is the strategy easy to implement?

Are there other organizations (division/programs, etc.) willing to co-sponsor, coordinate, or provide support to the strategy?

Does the organization have the expertise (or access to expertise) to develop and implement the strategy?

Summary

Once the costs, benefits, possible constraints, time frames, and resources have been analyzed, a strategy can be selected. Then, the tasks necessary to successfully implement the strategy must be identified. Strategies must be easily understood and must be shown in the strategic plan under each objective.

Example Strategies

Office of Administration, Division of Personnel: “Employee Stakeholder Meetings—Regional employee stakeholder meetings will be held to inform stakeholders regarding Ad Hoc Task Force on Total Compensation activities. In addition, employee organizations will be invited to form an advisory group to contribute additional stakeholder input.”

Department of Mental Health: “Implement a Patient and Family Education Program which encourages a partnership between mental health professionals, consumers and families.”

ACTION PLANS: What steps will be taken to achieve the strategies?

The action plan level is where the actual implementation of strategies occurs. Action plans are geared toward operations, procedures, and processes and describe who does what, when it will be completed, and how an agency will know it is completed. Action plans allow for the monitoring of progress on agency strategies.

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To successfully manage an action plan, it is necessary to

1. Assign responsibility for successful completion of the strategies.

Who oversees and will be accountable for implementation of the strategy?

2. Detail any action steps.

Detail any action steps that need to be carried out in order to fully complete the strategy.
Assign responsibility for successful completion of each action step.

3. Set a time frame for completion of the action steps.

When should each action step be completed? Does the person or team responsible for the strategy think the action steps can be completed within the desired time? Is the time frame for the action plan as a whole consistent with individual time frames projected for steps within the action plan? If not, how can differences be reconciled?

4. Determine the deliverable.

How will the agency know when each action step is completed? What is the tangible deliverable that will result from the action step (a report released, training session held, etc.)?

5. Provide a brief status report on each action step.

What progress has been made to date on implementation of each action step? What work remains to be done?

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BUDGET

If strategic planning is to be the basis for program implementation and for the allocation of state resources, then the planning and budgeting processes must be linked. The “Program Decision Item Analysis - Form 5” creates the linkage between strategic planning and budgeting. A strategic approach to budgeting will result in increased accountability and a greater emphasis on benefits and results.

Core and expansion budget requests should be driven by the strategic planning process. Resources will be directed towards those priorities that are expected to most efficiently and effectively achieve an agency’s outcomes. Outcome and objective measures will play an important role in the determination of resource allocation and will provide accountability to Missouri citizens and the legislature.

The aim of the Form 5 is to ensure tight linkages between the planning and budgeting processes while at the same time providing the information that the Governor and members of the General Assembly need to make informed resource allocation decisions. The Form 5 takes the strategic planning process down into the additional detail needed in the budget process to explain the specific item being proposed. If properly prepared, the Form 5 will become the primary source of information for the Governor and the General Assembly in making funding decisions. Information provided on the Form 5 should completely and concisely justify funding of the decision item or core request. The information presented should clearly show how the item supports essential functions. Each element must be organized and easy to read and understand.

Although a Form 5 must be completed for every core activity and expansion request, all Form 5 objectives and strategies do not need to be pulled directly from the strategic plan. Objectives and strategies for operational items as well as for programs of less strategic importance can be developed during budget preparation independent of the department’s strategic plan. Strategic plans should focus on the most significant challenges or opportunities facing the department rather than all activities a department is involved in.

LEGISLATION

Legislation can develop in response to strategic planning, or as a somewhat independent influence on strategic planning. In either case, it is clear that many areas that state agencies are responsible for often require or benefit from legislation. Legislation can benefit agencies by formally codifying program content and providing program authorization. This eliminates ambiguity of purpose and formalizes the scope of agency responsibility for program implementation.

In developing strategic plans, agencies should be mindful of areas that would benefit from (or perhaps require) legislative authorization or clarifying language. Legislative proposals addressing these areas should be developed in consultation with the Governor's office and the appropriate members of the General Assembly. Legislative proposals should consist of concise language that clearly spells out agency duties, and where appropriate, build in measurement to assess program effectiveness.

Legislative proposals of great significance to state agencies may become part of the Governor's annual legislative package. These proposals will receive considerable debate and scrutiny, and are often of central concern to stakeholders. These proposals are likely to have a direct impact on the course of upcoming strategic planning.

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Some legislative proposals affecting agency services may be developed without agency input. These proposals can affect the course of ongoing planning and may require revisions in program objectives or implementation. It is important that agencies remain informed about all of the legislative proposals affecting their programs; agencies should offer recommendations on how best to craft these proposals, to insure that they are consistent with agency mission, that they are amenable to implementation, and that they contain measurable outcomes.

EVALUATION OF RESULTS

Evaluation of results is a critical step in the strategic planning process that provides the feedback necessary to maintain a cycle of continuous improvement. In evaluating results, agencies review information from outcome measures, objective measures, and customer satisfaction surveys. They use that information to assess effectiveness of strategies and efficiency of operations, to revise service design and delivery, and to reallocate resources.

According to earlier editions of the “Model and Guidelines,” evaluation and analysis of results were to be presented in a separate report. The current strategic planning model integrates evaluation of results into the planning process and the agency’s written plan. The outcome and objective measures sections of this “Model and Guidelines” describe the levels of evaluation and analysis that should be presented in the strategic plan. Trends should be graphed, analyzed, and, where possible, Missouri results should be compared with national and regional data as well as data from other states. Factors that influence the measure should be explained, and successful approaches described. Measures used in evaluation should be carefully documented; data limitations should be noted.

All outcome and objective measures should be evaluated at least annually as the agency’s strategic plan is revised and updated. Many agencies have data collection systems that permit results to be reviewed more frequently, in some cases on a quarterly or monthly basis.

STRATEGIC PLAN EXECUTIVE SUMMARY

SAMPLE FORMAT

Department Name

Department of (Name)'s Vision Statement:

Department of (Name)'s Mission Statement:

Value Statements (Optional):

Department's Key Outcomes and Objectives:

- Key Outcome -- Page #(s) (where addressed in Strategic Plan)
 - Key Objective -- Page #(s) (where addressed in Strategic Plan)
 - Key Objective -- Page #(s) (where addressed in Strategic Plan)
 - Key Objective -- Page #(s) (where addressed in Strategic Plan)

- Key Outcome -- Page #(s) (where addressed in Strategic Plan)
 - Key Objective -- Page #(s) (where addressed in Strategic Plan)
 - Key Objective -- Page #(s) (where addressed in Strategic Plan)
 - Key Objective -- Page #(s) (where addressed in Strategic Plan)

- Key Outcome -- Page #(s) (where addressed in Strategic Plan)
 - Key Objective -- Page #(s) (where addressed in Strategic Plan)
 - Key Objective -- Page #(s) (where addressed in Strategic Plan)
 - Key Objective -- Page #(s) (where addressed in Strategic Plan)

IMPROVEMENT PROJECTS & PLANS

KEY SYSTEMS: What are the systems most critical to the success of the organization?

Strategic planning is an essential component in guiding organizational level change: setting an organization's direction and priorities, developing strategies, allocating resources, and measuring success. For an organization to truly change its way of doing business, however, system level change is also needed. System level change involves improving an organization's key systems through improvement to the system components (suppliers, inputs, processes, products/services, customers, and outcomes). Improvements to systems can be done in many ways, whether by determining customer expectations, redesigning products, or reengineering processes. Measurement, analysis, improvement, and planning are critical components of *both* organizational and system level change.

To drive system level change, key systems must be identified and improved upon. Therefore, in addition to strategic planning, organizations should analyze and set improvement targets for 2-3 systems each year.

Identifying a Key System

A key system can be any kind of system including a program, process or product that is critical to the success of the organization – why the department is in business. Key systems are often identified during the strategic planning process. Systems can be identified during an environmental assessment (e.g., if a weakness in a program is identified); during the selection and evaluation of key outcome or objective measures (e.g., if a process is identified as being critical factor in the achievement of an objective); or during the identification of key strategies (e.g., if a product is a key component for the success of an overarching strategy). *Put simply, key systems can be selected by identifying what the organization wants to accomplish within the next several years and selecting those systems that are critical to making this happen.* Analyzing and improving those key systems will help to ensure the success of the organization.

Example Key Systems:

- Child Abuse Hotline
- Water Quality Permits
- Individual Income Tax Form and Process
- Process for Hiring State Employees
- Parents As Teachers Program
- Transportation Project Scoping

Ways a Key System Can Be Analyzed and Improved

There are many different ways to analyze and improve a key system. It is often helpful to first determine how a system needs to be improved. Is there a specific problem with the system? Is there not a specific problem but a belief that the system can be made more efficient and effective? Or, are there significant problems with customer satisfaction?

If it is unclear how the system needs to be improved, it may be helpful to first identify critical performance measures for the system. Analyze the performance data—both the level and the trend. How timely is the delivery? What is the cost per unit? What is the error rate? If data are available on a regional basis, are there significant differences between regions? An analysis of the performance data can help to identify what the problem is and how further analysis and improvements should proceed.

Once performance measures are identified, improving a key system involves comparing actual performance on these measures versus the level of performance that customers and the agency hope to attain. After these performance gaps are identified, the agency must analyze its operations and make recommendations on how to change those operations to close those gaps.

KEY SYSTEM IMPROVEMENT PLAN: A written plan detailing how a key system will be improved

A key system improvement plan is the written plan that documents information for each key system selected and includes an introductory description of the key system; performance measures and targets for improved performance; and strategies, which outline the analysis that was done and recommendations for improvement.

Each agency should submit **2-3 key system improvement plans** with the annual update to the strategic plan.

Introduction

The introduction should define the key system (e.g., summary of how it works, description of the system's benefits, and the opportunities for improvement) and explain why the key system was selected as an improvement project. The introduction should also describe how the improved system would contribute to the organization's success.

Performance Measures

Organizations measure what they value. What they value often depends on the roles they play in transactions. For example, producers and providers of products are naturally concerned with process and production activities while customers care most about outcomes or results they experience from using products.

When an organization embarks on an improvement initiative it usually looks at changing how it does what it does (i.e. process focus). While this is an appropriate starting point it can overlook the fact that customers generally don't care *how* an agency does its work. Customers care about *what we provide them* (i.e. product focus) to help them achieve some desired outcome.

Key system improvement plans should include a balanced set of both process and product focused measures that ensure process efficiency, product quality, and customer satisfaction.

Product- and customer-focused measures center around timeliness, certainty of product/service, ease of use, and cost savings or cost-benefits. These are things any customer expects when purchasing a product or securing a service. Process-focused measures center around productivity, standards/compliance, volume/output, and cost to produce. The following page includes examples of both types of measures.

The system improvement plan should also include base line data for the performance measures, an analysis of those data, and improvement targets for each measure. More information on analysis of and target setting for performance measures can be found under the section on objective measures on pages 24-25.

Strategies

Key system improvement plans should include strategies that describe both the analysis that was done on the system (the steps that have been taken to date) *and* the specific courses of action that will be undertaken to improve the system. Strategies should contain as much detail as necessary to be clearly understood by those involved in the improvement project.

To develop strategies for improvement, the agency must determine how to best align resources and eliminate barriers to achieve the results intended by the improvement project. In choosing strategies, the costs, benefits, and anticipated consequences of alternative courses of action must be evaluated by the agency. Strategies may, and often will, cross program, division, or agency lines.

To effectively implement the recommended strategies for improvement, it is helpful to develop action plans that assign responsibility and time lines for each of the strategies. Action plans increase accountability and help to ensure that the recommended changes are made. The key system improvement plan that is submitted to the Governor, however, does not need to include an action plan.

Examples of Product- and Process-Focused Performance Measures

Product/Customer-Focused Measures	Process-Focused Measures
<p>Timeliness—(e.g., available quickly, completed/delivered on time, cycle time. Cycle time is the total elapsed time of a process as experienced by the customer.)</p> <p><u>Examples:</u></p> <ul style="list-style-type: none"> # days/hours between lab analysis and customer contact # days from receipt of vendor invoice to mailing of payment check # days from receipt of application/registration to mailing of license to customer % of requests for IT services completed within the time frame requested by the user # days to revise information on department web site 	<p>Schedule — ensuring inputs or finished products are available or completed at the designated time to meet production timelines</p> <p><u>Examples:</u></p> <ul style="list-style-type: none"> % of required inspections completed/month % of annual target produced to date # of days of remaining in inventory supplies # of contacts made compared to target
<p>Certainty—(e.g., accuracy, reliability, consistency, predictability, safety)</p> <p><u>Examples:</u></p> <ul style="list-style-type: none"> % of transactions produced correctly the first time % of licenses, registrations, products re-issued as a result of errors % of unscheduled computer downtime Comparison of measure(s) with outside organizations 	<p>Standards—measure of compliance with organizational standards or state/federal guidelines</p> <p><u>Examples:</u></p> <ul style="list-style-type: none"> % of compliance with regulations % of employees successfully completing certifications % of E&E expenditures with minority vendors
<p>Ease of Use—(e.g., understandable, clear, concise, complete, user-friendly, simple, accessible)</p> <p><u>Examples:</u></p> <ul style="list-style-type: none"> # of requests for clarification of reports, applications, forms, etc. # of applications, registrations, forms, etc. completed accurately the first time # of pages per application, registration, form, etc. # of errors per application, registration, form, etc. Customer rating score of product per survey/focus group/personal interviews, etc. # of modes (e.g., Internet, fax, phone, hard copy) in which a product is available 	<p>Productivity—the number of units (outputs) per the number of inputs (\$ or FTE)</p> <p><u>Examples:</u></p> <ul style="list-style-type: none"> # investigations/FTE/month \$ sales generated by Missouri companies as a result of marketing assistance per appropriated \$
<p>Cost to Use/Cost Savings/Cost Benefits—(e.g., fees paid by the customer for the product, reduced costs due to programs)</p> <p><u>Examples:</u></p> <ul style="list-style-type: none"> Customer cost per license/registration/product Average % of interest savings to borrower resulting from program participation 	<p>Cost to Produce—the direct expense and equipment cost per product</p> <p><u>Examples:</u></p> <ul style="list-style-type: none"> Average \$ cost per news release issued Average \$ cost per inspection/audit Total \$ cost per publication/brochure

KEY SYSTEM IMPROVEMENT PLAN EXAMPLES

EXAMPLE 1: Individual Income Tax Return

Introduction

The individual income tax return (form) was selected as a key department product because all taxpayers use this product/process annually to calculate the amount of taxed owed to the state or a refund due the taxpayer. The department processes approximately 2.7 million returns each year resulting in approximately \$4 billion of revenue to the state.

As all taxpayers depend on this product, it is imperative that the department's forms are accurate and processes efficient. By streamlining the process and customizing forms for the various customer groups, the department has increased customer satisfaction; increased voluntary compliance; decreased the cost of compliance, and improved performance excellence, its four overarching departmental outcomes.

Performance Measures

Initial analysis of the individual income tax return and process indicated that the two core business issues were the complexity of the form and the length of time taxpayers waited to receive a refund. The tax return was written at approximately an eleventh-grade level and designed to be a "one-form fits all." The high reading level coupled with many non-applicable lines was confusing to taxpayers. After filing, taxpayers had to wait an average of 14 days for a refund prior to April 15 and longer after April 15. The department's key targets were to customize the tax form to better meet filers' needs and to reduce the cycle time for refunds by at least 80 percent.

In addition to the customer expectation measures of ease of use and timeliness, cost to the customer is also tracked. Internal measures of efficiency such as yield, volume, cycle time, and cost to the department are tracked. By measuring and analyzing both customer priorities and producer interests, the department is monitoring both its level of customer satisfaction and its internal efficiencies. The example on the following page shows the measures in place for the individual income tax return.

INDIVIDUAL INCOME TAX RETURN

Measures	Base Line	Results	Results	Targets		
	FY 1999	FY 2000	FY 2001	FY 02	FY 03	FY 04
Number of returns processed (thousands)	2,734,842	2,846.9	2,746.0	2,785.0	2,815.0	2,845.0
Paper (thousands)	2,268,713	2,157.7	1,962.7	1,908.0	1,832.0	1,803.0
Telefile (thousands)	76,761	135.7	88.3	102.0	138.0	152.0
Electronic (thousands)	389,368	553.6	695.0	775.0	845.0	890.0
Percent of returns processed correctly the first time through the system						
Paper	69%	72%	79%	82%	83%	84%
Telefile	93%	85%	92%	93%	94%	95%
Electronic	88%	90%	94%	95%	96%	96%
Revenue generated by this product (billions)	\$3.2	\$3.5	\$3.9	\$3.8	\$3.9	\$4.0
Percent of people filing short form or utilizing technology methods	--	54%	59%	61%	63%	65%
Percent of taxpayers receiving a Notice of Adjustment	16%	11%	11%	8%	7%	6%
Average number of days to receive a refund						
Pre April 15	14	4.7	4.5	4.5	4.5	4.5
Post April 15	--	14.1	55.8	13.9	13.7	13.5
Average number of days to make a deposit						
Pre April 15	--	1.9	1.6	1.6	1.5	1.5
Post April 15	--	6.3	5.8	6.5	6.5	6.5
Cost to correct mistakes (thousands)	\$533.2	\$781.9	\$1,042.9	\$880.0	\$860.0	\$840.0
Number of days to process one return						
Paper	21.0	7.7	6.4	6.7	6.4	6.3
Telefile	6.0	4.5	4.4	4.4	4.4	4.4
Electronic	6.0	4.3	4.4	4.3	4.3	4.3
Total cost to produce (thousands)	\$2,890.6	\$3,137.0	\$2,570.5	\$2,600.0	\$2,675.0	\$2,750.0
Cost to produce one	\$1.06	\$1.10	\$0.94	\$0.93	\$0.95	\$0.96
Total cost to customers (millions)	\$84.4	\$81.9	\$91.0	\$95.2	\$99.7	\$103.6
Cost to customer (time and money) to produce one	\$31.00	\$28.77	\$33.14	\$34.20	\$35.43	\$36.40
Return on citizens' investment	\$38.00	\$42.14	\$42.33	\$39.89	\$39.09	\$38.62
Return on investment	\$1,120	\$1,100	\$1,502	\$1,461	\$1,457	\$1,454

Strategies

A team of employees was chartered to research how the department could improve customer satisfaction and internal efficiencies of this product and its process. The team developed recommendations, or strategies, for improvement based on customer feedback and data.

An action plan was developed for each recommended strategy assigning responsibility and a timeline. Following are the strategies for the individual income tax return and the associated action plan.

- Simplify the income tax form and instructions
- Emphasize technology filing methods in booklets
- Explore the feasibility of increasing the filing threshold to eliminate filers who owe no Missouri tax
- Continue revising the processing system and procedures to reduce data entry errors; and continue analyzing (and eliminating) edits that flag returns for review when changes are not needed to the return
- Expand the department's web page to include information to assist taxpayers with completing the Missouri return and common mistakes to avoid

Individual Income Tax Return Action Plan

Strategy	Deliverable (Completion Measure)	Due Date	Responsible Person(s)	Status	% Complete
Simplify tax form/instruction	Draft forms and booklets approved	10/31/2001	Personal Tax Forms Teams	Complete	100%
Emphasize technology filing methods	Marketing of technology filing methods complete	3/15/2002	Electronic Filing Promotions Team	On schedule	85%
Explore feasibility of increasing filing threshold	Proposal included in DOR package	11/15/2001	Mike D./Tracy K.	Complete	100%
Revise processing system and procedures	2002 system implemented, 2002 training manual complete	1/31/2002	Mike D.	Complete	100%
Speed-up programming	2002 system implemented	12/31/2001	Joe B.	Complete	100%
LONV programming	2002 system implemented	1/2/2002	Jerry W.	Complete	100%
LONA's	Posting of first LONA	1/31/2002	Doris F./Test Team	Complete	100%
Training Manual	Training manual in use	1/2/2002	Tonya P.	Complete	100%
Expand DOR Web Page to assist taxpayers	New DOR web page	1/31/2002	Mike D.	On Schedule	5%
Explore feasibility of simplifying short forms by removing Long Term Care and Over 65 Dependent Deduction	Proposal made	6/28/2002	Mike D.	On schedule	95%

EXAMPLE 2: Water Quality Permits

Introduction

Businesses apply to the Department of Natural Resources for different types of water permits, if they will be discharging into Missouri waters. The purpose of the program is to keep Missouri's water clean and safe by specifying, in detail, the amount and types of discharges that are allowed. Businesses have been unhappy with the length of time that it takes to get a permit. The number of permits being issued has been steadily increasing, with an increased amount of paperwork for the department. The opportunity for improvement is to streamline the paperwork in the permitting process to get businesses their permits quicker, and allow staff the time to do inspections that verify that water quality is being maintained. Improving the state's water program will improve the health and habitat for Missourians, while allowing Missouri businesses to grow and thrive.

Performance Measures

- Percent of permits issued within 180 days from receipt of application

The purpose of the improvement project was to speed up the issuance of permits, without increasing the cost, which means using only existing resources.

Further analysis of the measure shows that 92% of General Permits are issued within 180 days, 77% of Construction Permits, and 37% of Site Specific Permits.

The target is to get 100% of permits completed within 180 days, with General Permits completed within 30 days of receipt.

Strategies

Strategies were developed by flowcharting the entire permitting process, identifying handoffs from one person to another, what the actual work time for each step was, and the shortest and longest elapsed time for each step. Analysis of this flowchart made obvious some activities within the permitting process that were not necessary for development of the permit, such as entering GIS data for all sources of discharge, and analyzing water quality for specific watersheds. Bottlenecks, and sources of delay were identified, also, from this flowchart.

These are some of the strategies being implemented to increase the timeliness of issuing permits:

1. Pre-written Permits by Type

Groups of activities would be identified (other than those that are already covered under general permits) that are similar and would have fairly limited potential to cause water quality problems. A standard permit would be written that contains appropriate limits for the water body (or group of water bodies) for which effluent regulations are already established. This would achieve consistency for the receiving water body and should reduce the amount of time that regional office personnel spend on individual applications. Applicants would know "up front" the conditions that would be included in the permit. Standard permits would save about 2,000 hours annually for central office staff.

2. Permit by Rule for Storm Water

DNR currently has a variety of general storm water permits for a variety of businesses. Currently there are about 2,500 of these general permits with about 1,000 representing land disturbance. A conservative estimate is that the universe of sites needing storm water permits may grow by 5,000 in the future. Implementing permit by rule for all of these land disturbance activities will free up about 2,000 hours of engineer time in the regions, save the central office about 2,000 hours annually, and get permits out to applicants about 2 months quicker.

3. Streamlined Renewal of General Permits

A process will be developed to allow general permits to be renewed without requiring the permit holder to initiate the action, particularly if the facility is in compliance and will continue to discharge in the same manner. The permit holder would simply need to sign a statement that operations have not changed during the previous five years, and submit past monitoring data. This will save about 200 hours in central office annually, and get permits out to applicants about 2 months quicker.

4. Services Close to the Customer

Minor and general permits will be developed and issued out of the regional offices, and major and significant minor permits will be developed and issued out of the central office. Most general permits and many smaller site-specific permits are simple and non-controversial such that Central Office review is not necessary. Conversely some of the larger municipal facilities and industrial dischargers require a level of expertise that is available only in the Central Office. Through the DNR strategic planning process, the department will distribute workloads in a fashion by which this is accomplished while not burdening staff at either of the two work units, while getting permits out to applicants about 2 months quicker.

5. Get GIS Information Outside of Permitting Process

The present NPDES permit template requires very specific outfall location information that must be acquired by geographical positioning technology. The acquisition of this detailed site description can sometimes take additional time since most permit applicants do not have the knowledge or instrumentation to generate the data. Delays in permit issuance can occur while staff is attempting to acquire the information even though permit limits and other conditions are well defined.

6. Water Quality Review and Inspections Prior to Permitting

Sometimes permit renewal may be delayed because inspections and water quality review sheets are done during the actual permit renewal process. Although there is a desire to have recent facility information available at the time permits are being renewed, the acquisition of this information should be available to permit writers and permit holders no later than 180 days prior to permit expiration. Collection of this information, and development of appropriate models and wasteload allocations should be completed well in advance of permit renewals, cutting 1 to 2 months off the time it takes to issue a permit.

7. E-mail Public Notice Announcements

Presently public notices are developed in batches and mailed to a list of recipients and other public locations. The advent of computer technology and electronic correspondence has created an environment in which correspondence by standard mail could be replaced by electronic notifications. This could save paper and mailing costs as well as clerical time that is spent in developing bundles of public notice packages.

8. No Reapplication after Construction for Operating Permit

Presently applicants are required to submit a permit application for an operating permit after the wastewater facility has been constructed. The operating permit application is identical to the application required for construction without the plans and specifications. If the facility was built in accordance with the original plans and specifications, the public notice and operating permit issuance is unnecessary. The Department will modify permit procedures to delete this redundant process, saving many hours of work by the applicant.

EXAMPLE 3: Transportation Project Scoping

Introduction

Project scoping was selected as a key system because it is a critical component of the project development process. During project scoping, the elements and limits of a project become so well defined that accurate costs and project delivery schedules can be forecast. If scoping doesn't happen on the front end of the project, it will create chaos at the end of the project. When scoping a project, the question should be "what is the solution to the transportation need."

Performance Measures

The department selected process improvement measures in the areas of timeliness and cost to the customer. By measuring and analyzing both customer priorities and the timeliness to complete the scope, MoDOT is monitoring both its level of customer satisfaction and its internal efficiencies.

1. Initial Cost vs. Final Construction Cost
 - Target – Final construction cost should be +/- 3% of the initial cost estimate
 - Analysis – Over the last ten years, the final construction cost has average 13% more than the initial cost estimate. The average variance for the last two years was only 9%. Although we have made some progress, more work is needed to reach our target.
2. Number of projects each year that are +/- 10% of initial Statewide Transportation Improvement Program (STIP) commitment
 - Target – 95% of projects each year within +/- 10% of initial STIP commitment
 - Analysis – Over the last ten years, the percentage of projects each year within +/- 10% of the initial STIP commitment has averaged 75%. The percentage for the last two years has averaged 90%. This indicates we have made considerable improvement toward reaching our target of 95%. We will continue to examine ways to improve our estimating process in order to reach our target percentage.
3. Number of projects each year that are delayed
 - Target – 5% of projects delayed each year
 - Analysis – Over the last ten years, an average of 8% of the projects have been delayed. The percentage for the last two years has dropped to 5%. We will continue to examine our operations to insure continued success in meeting our target.
4. Number of project sites that have to be revisited within 3 years of construction completion
 - Target – 10% or less of project sites need to be revisited within 3 years of construction completion
 - Analysis – Over the last ten years, an average of 20% of project sites needed to be revisited within 3 years of construction completion. The average percentage for the last two years has dropped to 18%. We will continue to examine our operations to determine methods to reduce the percentage of project sites that need to be revisited within 3 years of construction completion in order to meet our target.

Strategies

A team of employees was chartered to research how the department could improve project scoping and then develop specific recommendations for improvement. The following is an action plan that was developed for each recommended strategy. The action plan assigns responsibilities and timelines as well as identifying necessary resources and the deliverable that will determine when an action is completed. Quarterly review dates have been scheduled to insure implementation of the recommendations, or strategies.

PROJECT SCOPING TEAM

Action Plan

Action	Deliverable	Responsible Person	Due Date	Resources
1. Identified and prioritized needs, not solutions, are given to project managers.	First "Need" sent out in new format	Cheryl B.	May 1, 2002 (draft format) August 2002 (Final)	P.S. Team, District Planning Personnel, Project Managers
2. Develop standardized checklist of most probable issues a core team will address when scoping a project – for Project Managers.	Checklist and change in policy	Jim S.	February 1, 2002	Project Managers
3. Develop standardized checklist of most probable issues a functional unit core team member will address when scoping a project.	Checklist and policy	Diane H.	February 1, 2002	Muscle - Administration office
4. Place only Preliminary Engineering (PE) on the STIP until the scoping process is complete.	2003-2007 STIP with PE only	Kyle K.	July 1, 2002	Resource Management
5. Additions or deletions to a project's scope after Right of Way plans and STIP commitment must have approval of the District Engineer and the Chief Engineer before becoming part of the project.	First major revision approval signed by DE and CE	Dave N.	February 1, 2002 (in effect)	
6. District Management & GHQ Planning must review and concur with the project concept, projected budget, and timeline for implementation of the selected solution prior to programming any Right of Way funds, construction funds, or prior to making any project-specific STIP commitments.	District management and GHQ concur with the project concept, budget and timeline.	Jim S.	February 1, 2002	Project Managers, Kyle K.

Action	Deliverable	Responsible Person	Due Date	Resources
7. The elements and limits of a project must be so well defined that accurate costs and project delivery schedules can be forecast prior to programming any right of way or construction funds (i.e., row plans or equivalent stage).	Project hits "Program Commitment" milestone	Dave N.	August 2002	
8. Core Teams are to have post-design meetings to discuss the project (i.e., What went right? What went wrong?).	First post-design meeting	Diane H.	February 1, 2002	Operations – Ken F.

Review Dates: January 2002, April 2002, July 2002, October 2002

STRATEGIC PLANNING TIMELINE

Interagency Planning Council reviews the “Missouri Strategic Planning Model and Guidelines.”	Continuous
Interagency Planning Council facilitates training options for departments so department decision makers and line staff will understand model and be prepared to implement model.	Continuous
Departments present draft strategic plans to Governor and Division of Budget and Planning.	July 1
Departments present key system improvement plans to Governor and Division of Budget and Planning.	July 1
Departments submit annual budget request documents, cross-referenced to strategic plans (copy of final strategic plan included with budget request), to Governor and Division of Budget and Planning.	October 1

GLOSSARY

Action Plan. Describes how strategies will be implemented, including the steps that must be taken, the individuals who are responsible for various tasks, what deliverables are expected, and the deadlines for completion.

Assessment. An appraisal of the capabilities, resources, constraints, problems and needs of the organization. Assessments may include environmental scans, strategic assessments (i.e., SWOT analysis), internal/external inventory, benchmarking, and work flow diagrams.

Baldrige Award. Congress established the Baldrige National Quality Award in 1987 to recognize U.S. organizations for their achievements in quality and performance. Recipients of the annual award are judged to be outstanding in seven areas: leadership, strategic planning, customer and market focus, information and analysis, human resource focus, process management, and business results. (*see "Missouri Quality Award"*)

Benchmark. A comparative standard for evaluating accomplishments.

Budgeting. The process of allocating financial resources to agencies, programs and projects.

COMAP. The former Commission on Management and Productivity was appointed by Governor Mel Carnahan to review the operations of Missouri state government and recommend ways to improve state government operations.

Customer. People or organizations who receive and use the products and services of an agency or program.

Environmental Assessment. A technique for assessing factors, trends and issues in society (e.g., demographic, social, economic, political and technological) relative to an agency's mission and inventory process.

Input. Labor hours, resources, assets, equipment, supplies, etc.

Internal Inventory. An assessment of the organization's strengths, weaknesses, mandates, mission, policies, directives, programs, funding and organizational structure.

Key System. Any program, process or product that is critical to the success of an organization.

Key System Improvement Plan. A written plan that describes the key system, performance measures and targets for improving performance, and strategies for improvement that are based on analysis of the system and recommendations for improvement.

Mandates. A duty required of an agency by law or rule.

Mission. A statement of the agency's purpose and reason for being.

Missouri Quality Award. The state-level quality award program is modeled after the prestigious Malcolm Baldrige National Quality Award and offers an educational process for organizations interested in learning and applying quality implementation techniques and assessment methods. Twenty organizations have received the Missouri award since 1992.

Objectives. *What is the success or impact of agency programs or approaches?* Objectives are specific targets for improved performance derived from an agency's outcomes and designed to indicate the success or impact of a program or approach. Objectives are specific, quantifiable, and time-bound statements of a desired accomplishment. Objectives represent milestones or intermediate achievements necessary to realize outcomes.

Objective Measures. *How will achievement of the objectives be measured?* Quantifiable information that indicates the degree to which the agency is achieving objectives.

Outcomes. *What are the results or benefits for the public?* The end points or public benefit results for which a level of success can be determined. Outcomes reflect a condition of well-being for children, adults, families, or communities or in the natural environment.

Outcome Measures. *How will achievement of the outcomes be measured?* Quantifiable information that indicates the degree to which outcomes are being achieved.

Output. The quantity of products or services delivered by an agency.

Stakeholder. A person, group or organization with an interest in the actions or outcomes of an agency.

Strategic Planning. A decision making process used to analyze environmental challenges or opportunities, set performance targets and design strategies to move to the organization's desired future (usually three- to five-year time frame). It is a continuous, systematic process for identifying intended future outcomes, how outcomes are to be achieved, and how success will be measured.

Strategies. *What actions will be taken to accomplish the objective?* Narrative statement(s) of an approach to achieve an objective.

Strengths, Weaknesses, Opportunities, Threats (SWOT) Analysis. Analysis of (internal) strengths and weaknesses, and (external) opportunities and threats.

Values. The principles of the organization—what it stands for and believes in.

Vision. A description of the ideal, future state of the organization or program.

APPENDIX

Examples from State Agency Plans

- Department of Elementary and Secondary Education A-2
- Department of Agriculture A-9
- Department of Public Safety A-15
- Department of Labor and Industrial Relations A-24

EXAMPLE

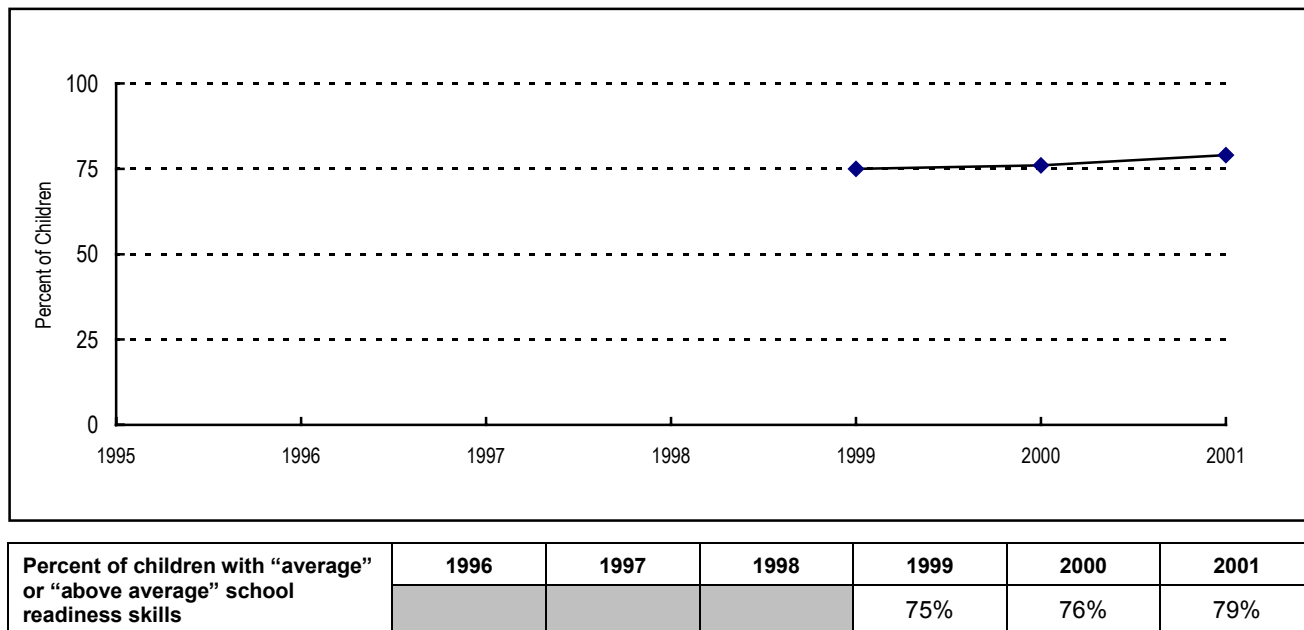
**Department of Elementary and
Secondary Education
Strategic Plan**

Key Outcome: Increased percentage of children entering school ready to succeed

What's the trend?

More than three-fourths of Missouri kindergartners enter school with average or above average school readiness skills, according to results of the Missouri School Entry Assessment.

Percent of children with “average” or “above average” school readiness skills



SOURCE: Missouri School Entry Assessment, 1999-2001

ABOUT THE MEASURE: The Missouri School Entry Assessment was conducted for the first time during the 1998-99 school year by the Department of Elementary and Secondary Education, in cooperation with the Departments of Health, Mental Health and Social Services. The assessment involves approximately 3,500 kindergartners drawn from a stratified, random sample of Missouri districts and schools. Teachers rate children on 66 items in general areas such as language development, mathematical understanding, and how they work with others. Based on their observations, teachers also rate each child in terms of his or her preparation for kindergarten. Children rated as average or above average are considered prepared for kindergarten. A complementary parent survey provides information about major pre-kindergarten experiences.

Why is this outcome important?

Neuroscience findings indicate that the first five years of life are critical in the development of a person's character and behavior. Research shows that quality early care and parent education programs improve children's readiness for school and later success. Failure to address the need for quality early care and parent education will mean that some Missouri children start school with undiagnosed developmental delays or health problems that could jeopardize their chances for success. Without a strong start in school, students will not acquire essential knowledge and skills and will be less likely to complete high school and continue their education. Without quality early care and parent education, costs for special education and remedial education services could increase. Opportunities to reduce child abuse and neglect through parent education and support will be lost.

How does Missouri compare to other states and the nation on this measure?

Comparative measures are not available at this time.

What factors influence this measure?

- Awareness and understanding among parents and school personnel of the research showing the importance of quality early care and education
- Families' awareness of and access to community agencies that can provide needed support services
- Districts' ability to provide adequate space and support services for preschool and full-day kindergarten programs
- Funding

What works?

Missouri has made progress during the past decade in providing quality early care and parent education programs. These programs must be expanded, however, to ensure that all families have access to high-quality preschool and child-care services and to ensure that parents are skilled, first teachers of their children. Approximately 366,000 Missouri children under the age of five and their families are eligible to take advantage of one or more of these programs or services:

- **Parents as Teachers (PAT)** is a voluntary program that supports parents in their role as their child's first and most influential teacher. PAT also provides screenings so that developmental delays and health needs can be identified and addressed before children enter kindergarten.
- The **First Steps** program provides early intervention services for children with special needs from birth to age three and their families.
- The **Missouri Preschool Project (MPP)** and **Title I preschools** are sponsored by the Department. Research shows that the quality of an early childhood program is directly related to the education and training of the early childhood teacher/caregiver. Both of Missouri's programs have high standards for teachers, curriculum and class size. MPP requires licensing before the opening of the preschool and accreditation by a nationally recognized organization within three years of opening.

Addressing the needs of young children and their families must be a collaborative effort among programs within the Department, and among the Department and other entities, both public and private, that provide services. The Department must continue to support initiatives that will create the cohesive, high-quality system envisioned by the state's Commission on Early Childhood Care and Education in 1997.

Other School Entry Assessment findings indicate that quality preschool experiences benefit children:

- When Parents as Teachers (PAT) is combined with any other pre-kindergarten experience for high-poverty children, the children score above average on all scales when they enter kindergarten.
- The highest performing children participate in PAT and preschool or center care. Among children who participate in PAT and attend preschool, both minority and non-minority children score above average. Children in both high-poverty and low-poverty schools who participate in PAT and attend preschool score above average when they enter kindergarten.
- Teachers rate special needs children who participate in PAT and preschool in addition to an early childhood special education program as being similar in preparation to other children.

Efforts to increase the percentage of students who enter school ready to succeed include making PAT services available to more families, especially those who meet high-need criteria; expanding educational preschool services through the Missouri Preschool Project and other programs created by House Bill 1519; and addressing quality issues, such as program accreditation, use of research-based curricula, teacher and teacher-assistant qualifications and professional development, and child-adult ratios. The Early Childhood Care and Education Interagency Team has developed an interagency work plan (goals, desired outcomes, objectives and strategies) to guide implementation of key initiatives.

For more information:

<http://www.dese.state.mo.us/divimprove/fedprog/earlychild/>

Early Childhood Education Section

Division of School Improvement

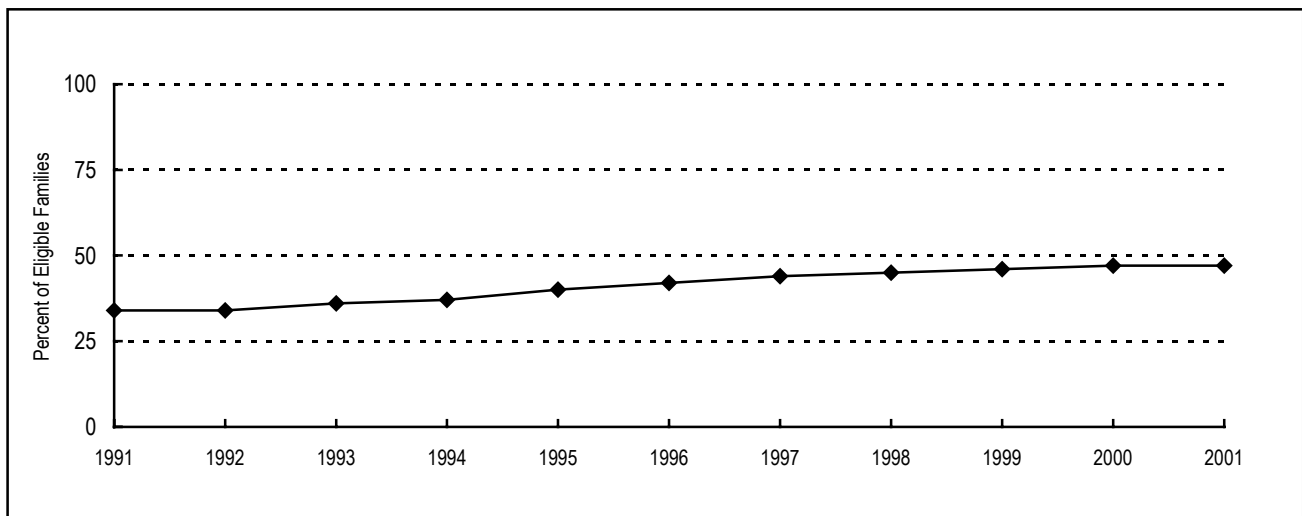
Missouri Department of Elementary and Secondary Education

Key Objective: Increase from 47 to 60 percent the number of families with pre-kindergarten children who participate in parent education and related support services, by 2005.

What's the trend?

The percent of eligible families served by PAT grew from 30 percent in 1990 to 47 percent in 2000 and remained stable at 47 percent in 2001. State education officials have set the objective of serving 60 percent of eligible families by 2005; they also believe that a long-term goal of serving 70 percent of eligible families is reasonable, despite the voluntary nature of the program. In recent years, the state has redirected some PAT resources to increase services for the neediest families as well as increase the overall number of families served.

Percent of eligible families served by Parents as Teachers



	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Percent of eligible families with pre-kindergarten children served by PAT (0-5 program)	34%	34%	36%	37%	40%	42%	44%	45%	46%	47%	47%
Percent of PAT families who are "high need" (0-3 program)			40%	40%	42%	48%	38%	41%	41%	44%	44%
Number of districts with PAT participation rates below 30% (0-3 program)					213 (41%)	187 (36%)	173 (33%)	149 (28%)	122 (23%)	110 (21%)	101 (19%)

SOURCE: Early Childhood Education Section, August 2001

ABOUT THE MEASURE: The PAT participation rate is calculated by dividing the number of families served by PAT statewide by the number of families with children, birth to five. The numbers of eligible families for the state and for each school district are derived from Census data multiplied by a change factor, which are supplied by the state demographer. The numbers of families served statewide and for each district are taken from end-of-the-year reports submitted by each district. "High need" families have one or more of the high-needs characteristics (see "What works?" below).

Why is this objective important?

Parents as Teachers is Missouri's model home-school-community partnership, which supports parents in their role as their child's first and most influential teachers. Several independent evaluations of PAT, conducted between 1985 and 1995, have shown the program to be effective: 1) PAT children were significantly more advanced in language development, problem solving, and social development at age 3 than comparison children, 2) 99.5 percent of participating families were free of child abuse or neglect; 3) children whose families participated in PAT maintained their early gains in elementary school, based on standardized test results, 4) PAT parents continue to take an active role in their child's education, and 5) school districts have reduced costs because fewer students required special education services and remedial education and fewer students were retained.

The state's Early Childhood Development Act of 1984 requires all school districts to make parent education and screening services available to families with children birth to five. Parents in every Missouri school district can choose to take advantage of PAT services, which include personal visits from certified parent educators, group meetings, developmental screenings, and connections with other community resources.

How does Missouri compare to other states and the nation on this measure?

Missouri is the only state that provides for and funds universal access to Parents as Teachers; therefore, comparative data are not available.

What factors influence this measure?

- Awareness and understanding among parents and school personnel of the research showing the positive effect of this program—especially when it is combined with quality preschool experience—on young children

- PAT participation is voluntary.
- The ability of district PAT staff to reach high-needs families and inform them about the benefits of PAT participation
- Funding

What works?

- Expanding services to high-need families.

For the past three years, school districts have been able to provide as many as 25 personal visits for families with high needs. (High-needs families include teen parents; unemployed parents; parents with disabilities; foster parents; parents involved with the state's corrections, mental health, health, or social service systems; non-English speaking parents; those with chemical dependencies.) In 2000-01, 44 percent of the families participating in PAT (birth to 3 program) met one or more of the high-needs characteristics.

- Expanding services to families with three- and four-year olds.

155,156 Missouri families received parent-education services through PAT in 1999-2000, including 29,107 newly recruited families. State education officials support expanding parent-education services for families with three- and four-year-olds so that they receive the same level of services as participants in the PAT birth-to-3 program. Continuing the same level of services for families with three- and four-year-olds would strengthen the transition to kindergarten and help increase school-readiness skills among Missouri children.

- Expanding developmental screening services.

In 1999-2000, 132,850 children, ages 1-5, participated in developmental, language, hearing and vision screenings, which help to detect and address problems that might affect a child's future success in school. State education officials also believe developmental screening services should be expanded for all preschoolers.

- Expanding outreach and publicity efforts.

Districts that actively recruit in hospitals, doctors' offices, WIC (Women, Infants and Children nutrition program) offices, and Family Services offices increase the percent of eligible families who participate in PAT.

For more information:

<http://www.dese.state.mo.us/divimprove/fedprog/earlychild/>

Early Childhood Education Section

Division of School Improvement

Missouri Department of Elementary and Secondary Education

Key Strategies

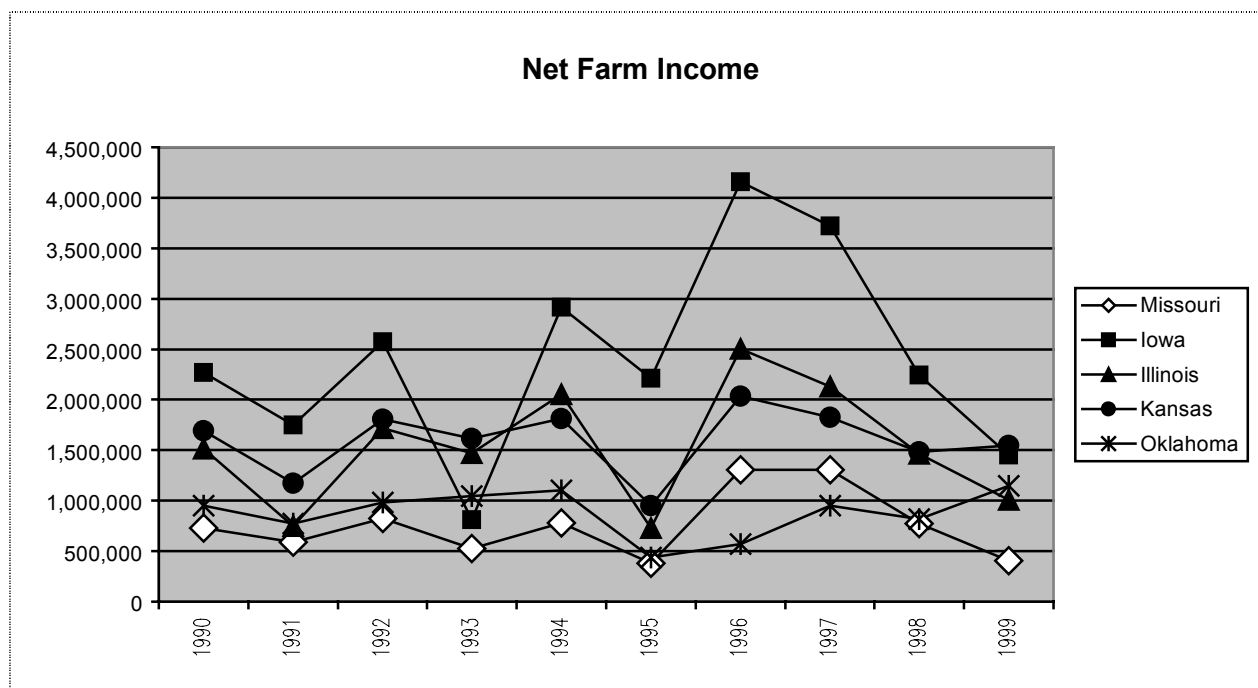
1. The Department will inform school leaders about the importance of increasing participation in parent education and support systems, particularly among high-needs families.
2. The Department will advise districts on removing barriers to the involvement of families and communities as active partners in their children's education through PAT, e.g. helping districts identify neutral locations where PAT parent educators can meet with parents who live in unsafe neighborhoods.

3. The Department will make a concerted effort to assist districts that have historically low participation in PAT, including St. Louis and Kansas City.
4. The Department will encourage districts to recruit more First Steps families into PAT.

EXAMPLE

**Department of Agriculture
Strategic Plan**

Key Outcome: Improved Net Farm Income



Source: USDA National Agricultural Statistics Service (5/01)

Why This Measure Is Important

Measures of farm-sector income are valuable indicators of how well agriculture and rural economies are performing. Farm income affects the prosperity of not only farm households, but rural businesses other than farms. When farmers use their income to purchase farm inputs and household goods they infuse the economy with additional funds, contributing to the revenues of other local businesses and the maintenance or creation of local jobs. Lending institutions also share in the benefits of net farm income due to the improved repayment capacity of farm borrowers and reduced risk in farm loan portfolios.

Trend Analysis

Missouri's net farm income reached record levels in 1996 and 1997 before falling dramatically in 1998 and 1999. Market prices for Missouri's major crops and livestock have been under significant pressure for the last few years due primarily to high crop yields worldwide and reduced export demand. These low market prices and the drought of 1999 have weakened Missouri producers' financial position. However, despite these declines, the high-income years of 1996 and 1997 boosted the 5-year average net farm income by 21 percent in 1995-99 compared to 1990-94.

How Missouri Compares to Others

According to USDA's Economic Research Service, Missouri's neighboring states have experienced similar declines over the last few years. Since 1996, Iowa, Illinois, and Kansas experienced net farm income declines of 65%, 60%, and 24% respectively. Oklahoma was the exception in experiencing an increase of 101% over this period. Oklahoma's increase was due to its relatively depressed farm income level in 1996 and the strength of its livestock sector, which increased 31 percent from 1996-99.

What Works

Income is created by production, and the value of production is the primary determinant of net farm income. The Missouri crop sector is expected to rebound from the 1999 drought. After a several year period of weakness, grain and oilseed prices are expected to recover steadily over the next few years in response to strengthening demand and a growing world economy. Fruits, vegetables, and greenhouse/nursery products are also expected to continue their steady rise in sales.

The value of livestock production is expected to continue its recent improvement. Relatively low feed costs, steady consumer income growth, and strong demand have encouraged higher beef and pork production. The demand for U.S. livestock exports has been strengthening, perhaps helped by greater consumer confidence in U.S. food safety.

Agricultural exports will likely continue to grow in importance. From 1994 to 1998 exports increased 53 percent and the percentage of cash receipts attributable to exports increased from 20 to 29 percent. The value of exports attributable to MDA's international marketing activities has increased from \$3.7 million in FY '97 to \$13 million in FY 2000.

Major incidents of illness associated with food consumption have greatly increased consumer concern about food safety in recent years. For example, recent outbreaks in Europe of BSE and foot-and-mouth disease have led to dramatic declines in beef consumption there and significant losses for associated industries. In the first year of the crisis, the UK's total economic loss from BSE was estimated at US\$1.2-1.6 billion. Animal disease control remains a critically important function for MDA.

Disease outbreaks have also fostered consumer interest in purchasing organically produced foods, supporting production processes that are environmentally friendly, and encouraging farming operations that take animal welfare concerns into consideration, though these activities may not necessarily factor into protection from disease transmission. Markets for these foods remain small but are expanding. MDA is positioned to take full advantage of these emerging opportunities.

Department initiatives such as identity preserved marketing, specialty crops, organic production, and value-added processing will help producers capture more of the revenue stream in the in agri-food system. New forms of producer organization (e.g. new generation cooperatives, producer alliances, strategic partnerships) and improved marketing strategies have also proven effective in increasing net farm income and are included in the department's strategic priorities.

Concerns

- Production agriculture and net farm income are particularly vulnerable to declines in world economic growth, increased foreign production, a strong dollar, increases in energy costs, and weather.
- Net farm income is a relatively good indicator of how well the agriculture sector as a whole is performing. However, as an aggregate measure, net farm income does not reveal the wide variations in income and circumstances among various categories of farmers and does not include off-farm income and wealth, which have become increasingly important.
- Net farm income includes the value of government payments to agricultural producers. Changes in the level of government payments can have a significant impact on net farm income.
- Net farm income does not fully capture the profits obtained from processing or marketing value-added products. As agricultural producers move into value chains and closer to the consumer, many of the benefits will not be reflected in the net farm income measure. The department is working to develop a measure of the total economic impact of Missouri agriculture that would include more of the value obtained from agricultural processing and marketing.

Other Sources of Information

USDA's Economic Research Service—<http://www.ers.usda.gov>
 Missouri Agricultural Statistics Service—<http://agebb.missouri.edu/mass>
 Food and Agricultural Policy Research Institute—<http://www.fapri.missouri.edu>

Data Table

Net Farm Income—Missouri & Surrounding States

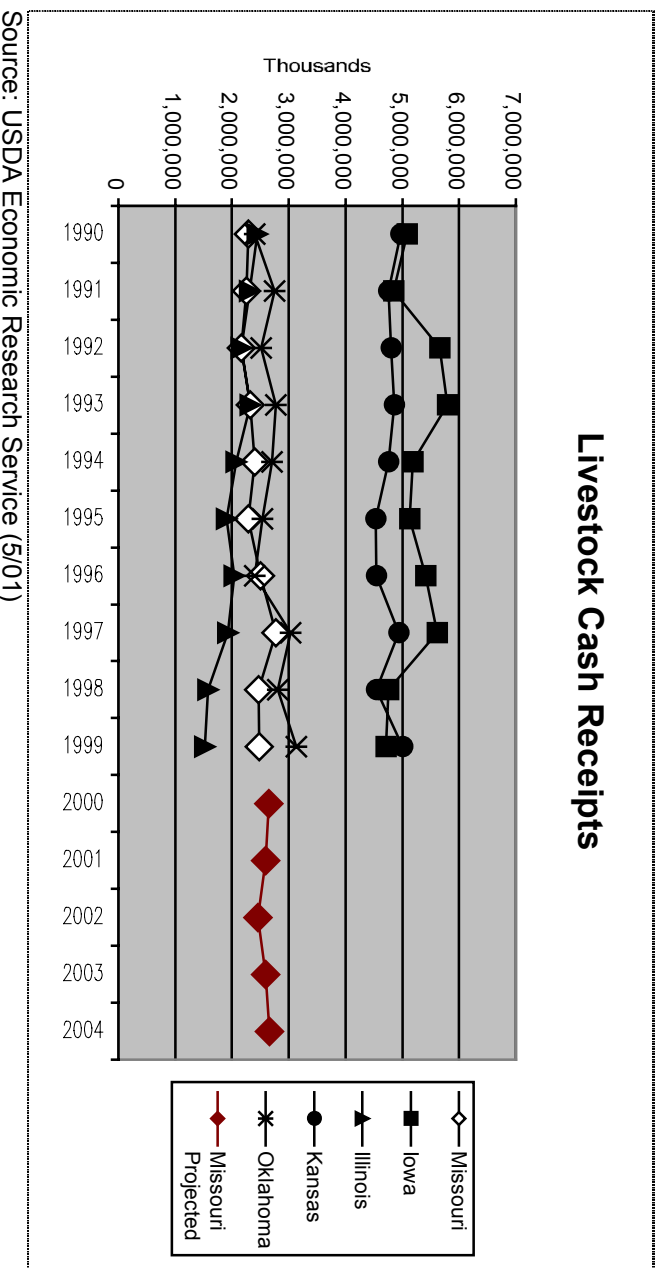
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
—Thousand dollars—										
Missouri	725,844	589,832	824,857	528,711	777,064	383,197	1,306,200	1,308,159	773,782	404,773
Iowa	2,266,424	1,747,548	2,574,726	813,058	2,916,298	2,208,871	4,155,831	3,723,335	2,242,037	1,450,176
Illinois	1,514,477	750,378	1,718,806	1,473,002	2,055,304	728,732	2,504,298	2,126,612	1,461,672	1,007,007
Kansas	1,694,544	1,172,903	1,803,578	1,613,235	1,811,860	953,333	2,037,640	1,825,637	1,485,251	1,547,850
Oklahoma	951,055	772,833	981,177	1,045,895	1,102,068	439,110	572,677	953,657	818,147	1,149,787

Source: USDA National Agricultural Statistics Service (5/01)

Description of Measure

Net farm income is net cash income (i.e. cash receipts less operating costs) adjusted for changes in inventory values and capital replacement costs. Net farm income represents the income earned by farmers, their partners, and others who supply the labor, management, and capital for use in production agriculture. Net farm income does not include the additional income farmers may receive from processing or marketing value-added products.

Key Objective: Increase sales of Missouri livestock from \$2.5 billion in 1999 to \$2.7 billion in 2004.



Why This Measure Is Important

Missouri is home to a diverse livestock population, which produces revenue of over \$2.5 billion annually. Livestock production is important not only to the rural economy of Missouri but also to the state's overall economy. A strong livestock economy keeps producers on the farm and out of secondary jobs, thus reducing unemployment. A strong livestock industry adds value to feed grain production and acts as a multiplier to the total rural economy, which increases tax base and reduces demands on financial support programs provided by state and federal sources.

Trend Analysis

The value of livestock sales over the past ten years has remained fairly stable at between \$2.3 and \$2.5 billion, with minor fluctuations due primarily to the cyclical nature of pork and beef demand. Notable exceptions are sustained growth in the poultry industry primarily due to increasing numbers and steady product demand. The second exception to the stable trend in livestock products is a rapid decline in a once strong dairy industry.

How Missouri Compares to Others

Missouri has shown an 8 percent increase in livestock cash receipts over the last 10 years compared to decreases in Iowa and Illinois. Kansas has remained stable while Oklahoma has increased its livestock receipts by 28 percent over this period. Missouri ranks second nationally in beef cow production, sixth in hogs, fifth in turkeys, tenth in broilers and sixteenth in milk production. Missouri has land predisposed to livestock production, and is geographically located to supply livestock products to the rest of the nation.

Factors Influencing the Measure

The value of livestock and poultry sales is influenced by numerous factors including cost of production, animal disease status, weather/climate, consumer demand, public relations/advertising, and the overall supply and demand factors of the industry. The Missouri Department of Agriculture (MDA) can significantly affect these factors by working with the livestock industry to ensure healthy, safe, high quality products and by adding value to Missouri livestock and their products.

What Works

Disease Control

The department works to control and eradicate animal diseases that threaten the vitality of Missouri's animal agriculture and is prepared to respond to any animal disease that can negatively affect public health or limit the access of Missouri's livestock and livestock products to domestic or international markets. In addition, foreign animal disease prevention and surveillance is an on-going priority as illustrated by the MDA's recent response to foot-and mouth disease crisis in Europe.

Quality Assurance / Food Safety

Most livestock producers recognize and support consumers' demand for high quality, safe, and wholesome milk and meat products. Many quality defects are associated with mismanagement practices, genetic non-conformance, and improper use of animal medications. Addressing these issues through quality assurance programs increases the competitive position of Missouri's producers. A beef quality assurance program is currently being presented to many of our livestock markets, beef associations, and related groups. A dairy quality assurance program is being prepared to reach dairy producers statewide. The department has cooperated with the U.S. Food and Drug Administration to provide training for department staff on residue prevention and detection in meat and milk.

The development of an individual animal identification database helps ensure continued access to foreign markets while ensuring food safety and building consumer confidence. In addition to improving disease control and food safety, animal identification provides livestock producers with the information needed to improve breeding and management practices to ensure a better return for their products.

State Meat Inspection

In addition to helping meet consumer demands for food safety, the State Meat Inspection Program encourages small livestock producers to work with existing slaughter processing plants to add value to their products through inspected slaughter. This program uses the same rules and regulations as the USDA program and receives financial support of 50 percent of the program's costs. The program has opened new market opportunities for intrastate sales and potential interstate sales.

Animal Welfare

Although not captured in traditional measures of the livestock industry, Missouri's 2,038 animal care facilities are a significant source of revenue and economic activity. The inspection, regulation, and licensing of these facilities helps ensure both animal well-being and the prosperity of this industry.

Environmental Assistance

Environmental issues (e.g. nutrient management, Total Maximum Daily Loads (TMDL), permitting, proper disposal of waste water, etc.) are increasingly important to the sustainability and expansion of animal agriculture in Missouri. Technical assistance on these issues helps livestock producers overcome communication and administrative barriers that may otherwise prevent them from locating, expanding, or even remaining in business in Missouri.

Concerns

- Consumer demands for food safety and quality continue to increase. Most of these demands will require the producer to make considerable additional investments to remain a viable supplier of meat or milk.
- Environmental regulations may continue to increase the cost of producing livestock.
- The introduction of a foreign animal disease into the U.S. animal population could cause tremendous losses to all facets of the livestock industry. For example, in the first year of the United Kingdom's BSE crisis, the total economic loss from BSE was estimated at US\$1.2-1.6 billion.

Data Table

Livestock Cash Receipts

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	—Thousand dollars—									
Missouri	2,288,690	2,254,999	2,165,318	2,321,321	2,406,264	2,284,533	2,497,101	2,771,776	2,468,654	2,476,532
Iowa	5,079,331	4,848,154	5,655,773	5,791,111	5,190,742	5,130,421	5,406,182	5,613,082	4,753,474	4,712,263
Illinois	2,443,561	2,314,918	2,165,579	2,317,415	2,069,654	1,905,491	2,038,953	1,928,400	1,573,556	1,524,322
Kansas	4,968,692	4,756,064	4,799,566	4,863,421	4,761,464	4,533,816	4,537,434	4,935,638	4,538,646	5,008,775
Oklahoma	2,397,169	2,752,831	2,517,975	2,776,522	2,705,053	2,534,639	2,399,646	3,036,711	2,802,805	3,135,425

Source: USDA Economic Research Service

Description of Measure

The measure includes all farm level cash receipts from sales of livestock, including cattle, hogs, sheep, dairy products, poultry and eggs, honey, horses, wool, aquaculture, and other livestock.

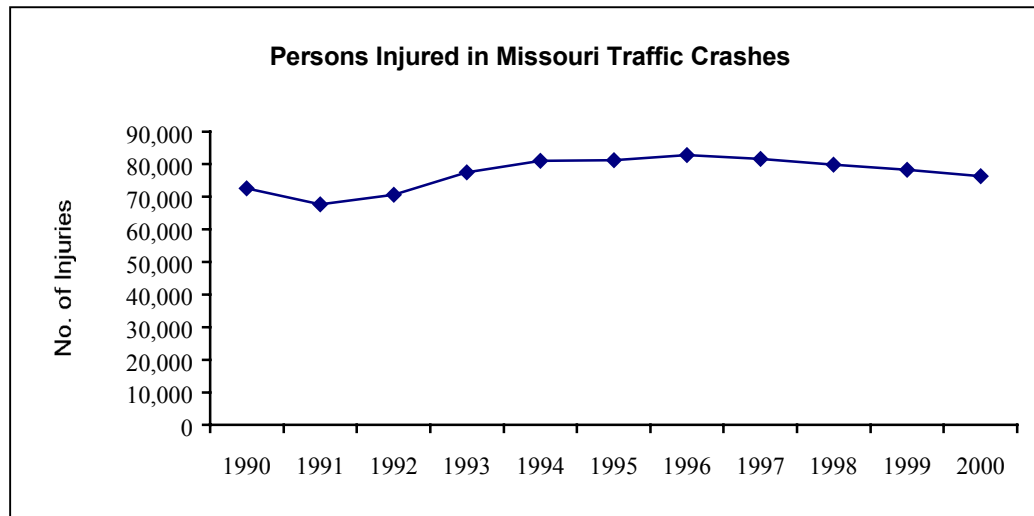
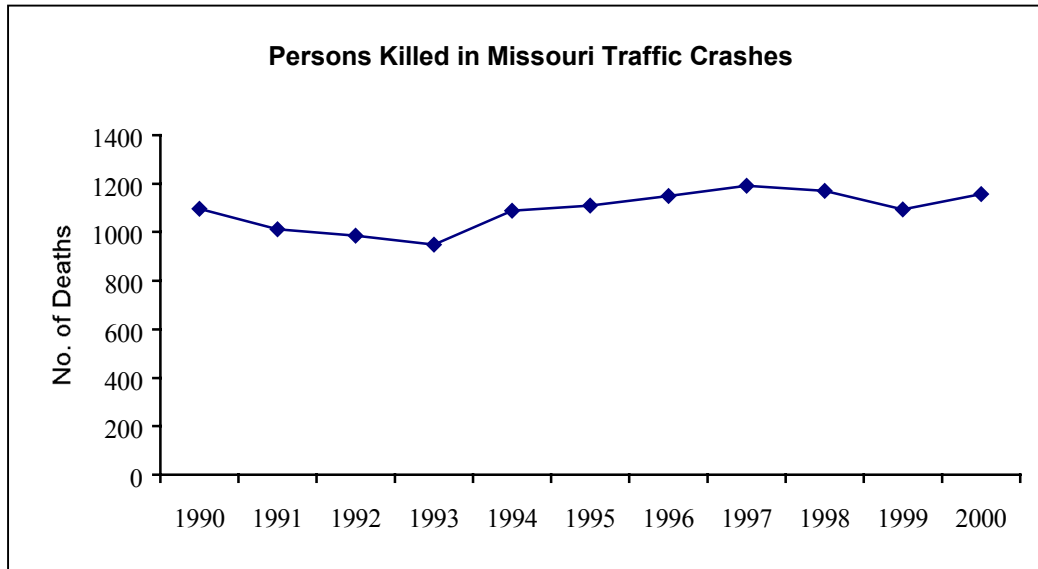
Key Strategies

1. Achieve brucellosis-free classification in FY 2003.
2. Maintain disease-free state classifications for bovine tuberculosis, swine pseudorabies, swine brucellosis, and poultry Pullorum-Typhoid through 2005.
3. Further develop and expand the state meat inspection program to increase the value of Missouri's livestock products.
4. Increase the number and capacity of value-added agricultural processing facilities.

EXAMPLE

**Department of Public Safety
Strategic Plan**

Key Outcome: Reduced incidence of injuries/deaths caused by motor vehicle crashes



Data Table

Persons Injured and Killed in Missouri Traffic Crashes

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Killed	1,097	1,011	985	949	1,089	1,109	1,148	1,192	1,169	1,094	1,157
Injured	72,493	67,707	70,550	77,521	81,046	81,174	82,717	81,570	79,765	78,297	76,328

Why This Outcome Measure Is Important

Traffic safety is one of the most prominent and widespread public safety issues. Traffic crashes have a profound economic and emotional effect on the citizens of Missouri. In 2000, traffic crashes in Missouri accounted for an estimated economic loss well in excess of \$3,000,000,000. This includes the loss of productivity due to injury or death, and the long-term treatment of disabling injuries and the loss of property as a result of a traffic crash.

Fatal traffic crashes are one of the leading causes of death in the United States and the greatest cause of violent death. It is estimated that three out of every ten Americans will be involved in an alcohol-related traffic crash at some time in their lives.

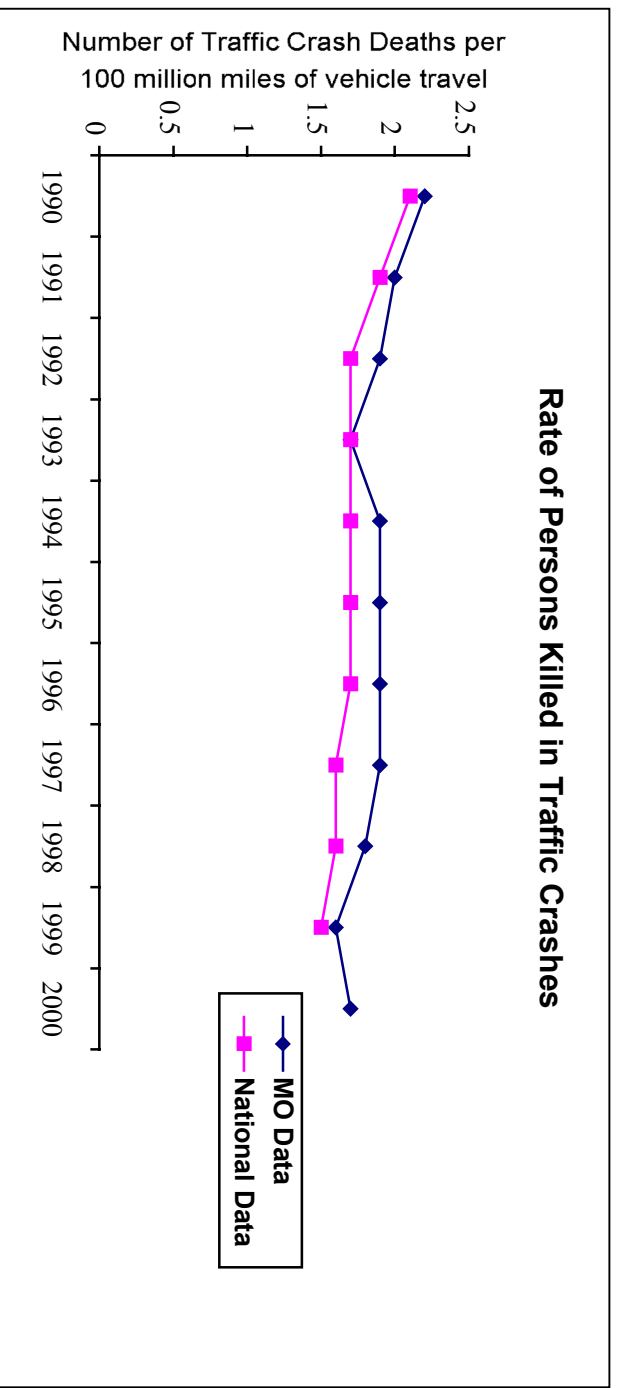
Outcome measure data identifies causal factors or characteristics of Missouri's traffic crash experience, which directly impact the frequency of occurrence or personal death and injury severity levels. This information can be used as a tool to identify trends in traffic crashes and determine where best to focus the resources available to the Missouri State highway Patrol and the Division of Highway Safety. It would also provide an opportunity to evaluate the effectiveness of the current programs being utilized by these divisions to reduce the occurrence of personal death and injuries in Missouri.

Trend Analysis

- Speed was found to be a significant factor in Missouri's traffic crash experience especially as it relates to crashes involving death and injury. Of all 2000 Missouri traffic crashes, 16.2% were speed related. Of all fatal crashes, 36.0% were speed related. A total of 437 persons were killed and 16,444 were injured in this type of crash. In 2000, one person was killed or injured every 31.2 minutes in speed related traffic crashes in the state of Missouri.
- Drinking involvement was a significant contributing factor in Missouri's serious traffic crash experience in 2000. Of all 2000 Missouri traffic crashes, 4.6% involved a person drinking. However, of all fatal crashes, 22.9% had a person drinking. A total of 617 persons were killed and 6,290 were injured in these crashes. In 2000, one person was killed or injured in drinking-involved crashes every 1.3 hours in the state. It should be noted that drinking involvement is being under-reported as a causal factor in traffic crashes and is an even greater problem than the above statistics indicate. This is attributed to the fact that there is inconsistency in how peace officers document drinking involvement on the accident report.
- Drivers of motorized vehicles under the age of 21 were involved in a large number of crashes in the state of Missouri. Of all 2000 traffic crashes, 31.6% involved one or more drivers under the age of 21. Of all fatal crashes, 25.8% involved a young driver. Their involvement in Missouri traffic crashes becomes even more significant when it is recognized that drivers under 21 made up only 10.4% of all Missouri's licensed drivers. In 2000, one person was killed or injured in a young driver involved traffic crash every 20.6 minutes in the state of Missouri.
- Drivers of motorized vehicles 55 years of age and older were involved in a large number of Missouri traffic crashes. Of all 2000 traffic crashes, 26.1% involved an older driver. Of all fatal crashes, 29.9% involved an older driver. A total of 359 persons were killed and 18,894 were injured in these traffic crashes. In 2000, one person was killed or injured in an older driver involved crash every 27.4 minutes in the state of Missouri.
- Commercial motor vehicles were involved in a significant number of Missouri traffic crashes. In 2000, 10.3% of all traffic crashes involved a commercial motor vehicle. When examining fatal traffic crashes, 18.4% involved a commercial motor vehicle. A total of 227 persons were killed and 6,399 were injured in commercial motor vehicle related crashes. As a result, one person was killed or injured in commercial motor vehicle involved traffic crashes every 1.3 hours in the state.
- Construction/other work zones are not involved in a large number of traffic crashes in the state of Missouri. However, they are considered a significant problem because they are temporary in nature and not found that frequently on the state's roadway network compared to other types of traffic controls. In 2000, 1.1% of all traffic crashes involved a construction/other work zone. When examining fatal traffic crashes, 1.1% was associated with a construction/other work zone. Fifteen persons were killed and 838 were injured in construction/other work zone related traffic crashes. As a result, one person was killed or injured in this type of crash every 10.3 hours.
- The wearing of seat belts by drivers and passengers in vehicles is one of the best ways to prevent death and personal injury when involved in a traffic crash. The state of Missouri has recognized

the benefit seat belt usage has on reducing traffic crash deaths and injuries through the passage of infant restraint and adult seat belt laws in recent years. The effectiveness of using seat belts becomes apparent when considering the following statistics. A driver of an automobile, van, motor home, or truck involved in a 2000 Missouri traffic crash had a 1 in 3 chance of being injured if they were not wearing their seat belt. However, if they were wearing a seat belt, their chance of being injured was 1 in 7. When examining driver deaths, the difference is much more dramatic. A driver involved in a 2000 Missouri traffic crash had a 1 in 59 chance of being killed if they were not wearing a seat belt. In those cases where the driver wore a seat belt their chance of being killed was 1 in 1,369.

How Missouri Compares to Others



Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MO Data	2.2	2.0	1.9	1.7	1.7	1.9	1.9	1.9	1.8	1.6	1.7
National Data	2.1	1.9	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.5	N/A

- Source:
1. MO Data, MSHP Traffic Safety Compendium, 2000, p. 9
 2. National Data, NHTSA Traffic Safety Facts, 1999, p. 15

Factors Influencing the Outcome Measure

There are several factors that will have an influence on this outcome measure they are:

- The speed limits on our state roadways. There is a direct correlation between the speed of a motor vehicle and the number of fatalities and the severity of injuries.
- The condition of the Missouri roadways. As the roadways get older and less maintained, deaths and injuries will increase.
- The number of communities annexing property along heavily traveled roadways. More traffic entering and exiting major roadway systems increase the possibilities of traffic deaths and injuries.
- The style, size and operating condition of motor vehicles. The larger the vehicle the better rate of survivability. The smaller the vehicle the more likely death and injury will occur.

- Number of vehicles on Missouri roadways. As the number of vehicles traveling on Missouri roadways increases so will the number of death or injury.
- Driving attitudes and habits. The more aggressive the driver is and the less tolerant they are of other drivers the more likely the possibility of death or injury.

All of these factors will in their own way have an influence on the outcome measure.

What Works

Education: Includes the education of the motoring public and law enforcement professionals regarding issues pertaining to traffic safety. These issues include, but are not limited to, impaired driving, safety belt usage, aggressive driving, inattentive driving, and vehicle maintenance. Voluntary compliance with traffic safety principles is the ultimate achievement of an effective traffic safety education program.

Enforcement: The enforcement of traffic laws, through the use of warnings or traffic arrests/summons, designed to discourage unsafe driving. Enforcement initiatives associated with traffic safety include regular traffic enforcement duties and special operations such as sobriety checkpoints, Combined Accident Redirection Effort "CARE operations," covert vehicle use, aircraft enforcement, and saturation enforcement programs.

Engineering: Traffic safety engineering pertains to both vehicle safety and roadway safety. Laminated windshields, safety belts, collapsible steering columns, and occupant airbags are items associated with vehicle safety improvements. Roadway design safety features currently used include break-a-way signposts, straighter and wider roadways with paved shoulders, crash absorbing devices at abutments and bridge pillars, guardrails and median dividers, and improved intersection designs.

Concerns

There is a concern that if speed limits increase on the highways coupled with more people driving; the number of traffic crashes would increase.

The more the state highway system ages the more opportunity there will be for traffic related crashes.

With some of the most recent publicity concerning "road rage" there appears to be a trend towards more aggressive driving. If this is not stopped there is a reasonable certainty that traffic crashes will occur.

Deterioration of the highway system might be more easily forestalled were Missouri to secure more federal funding by further complying with guidelines issued pursuant to Transportation Equity Act for the 21st Century (TEA-21), such as those concerning the use of ignition interlocks and the prohibition against open containers. More stringent enforcement of traffic laws already on the books might help to curtail the unsafe behaviors associated with road rage.

Description of Measure

A traffic crash is defined as an unintended event resulting in property damage equal to or greater than \$500, injury, or death involving a motorized vehicle on a public roadway. Persons killed or injured include drivers and occupants of motorized vehicles and other transport devices as well as pedestrians struck by motor vehicles.

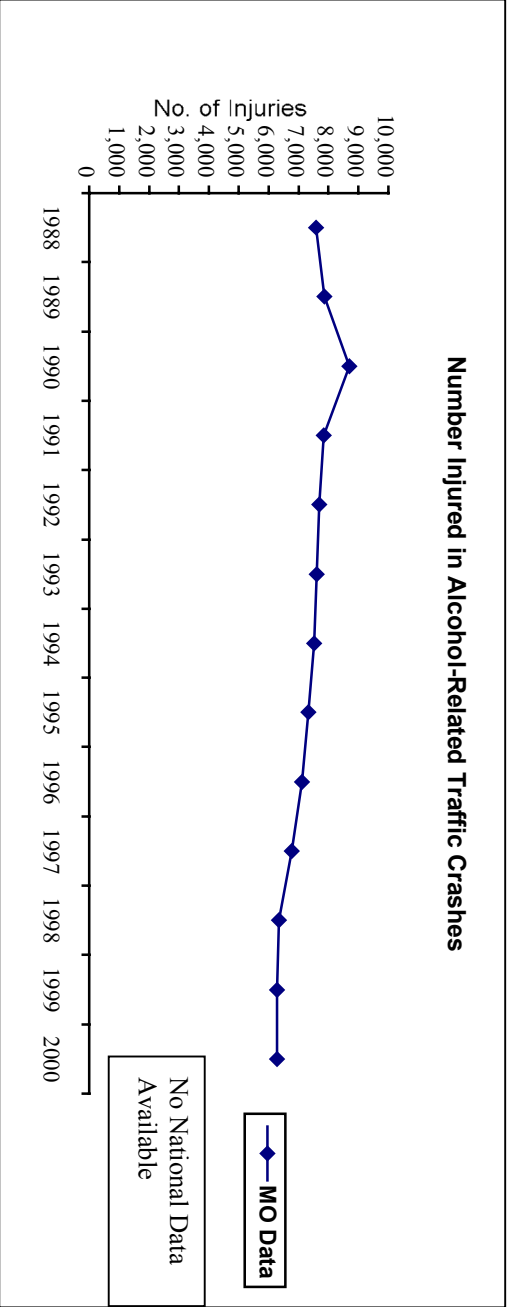
Traffic crash data used were obtained from the Statewide Traffic Accident Records System (STARS). The Missouri State Highway Patrol (MSHP) maintains this system. In accordance with state statute, law enforcement agencies are required to investigate traffic crashes occurring on public roadways if they involve a death or personal injury or property damage over \$500. They submit their findings on a standard traffic accident report form to the STARS system.

Slight discrepancies may be found if comparisons are made with other publications using data from the STARS system. These discrepancies may be a result of updates being made to STARS files between the time the other publications were developed and the time data analysis for this publication was performed. In addition, the STARS database selection logic used to identify a specific traffic crash problem could be different, which would result in discrepancies in data display presentations. Discrepancies also may be found if comparisons are made with National Highway Traffic Safety Administration (NHTSA) data related to traffic crash statistics. Although, discrepancies exist, this is believed to be the best data available.

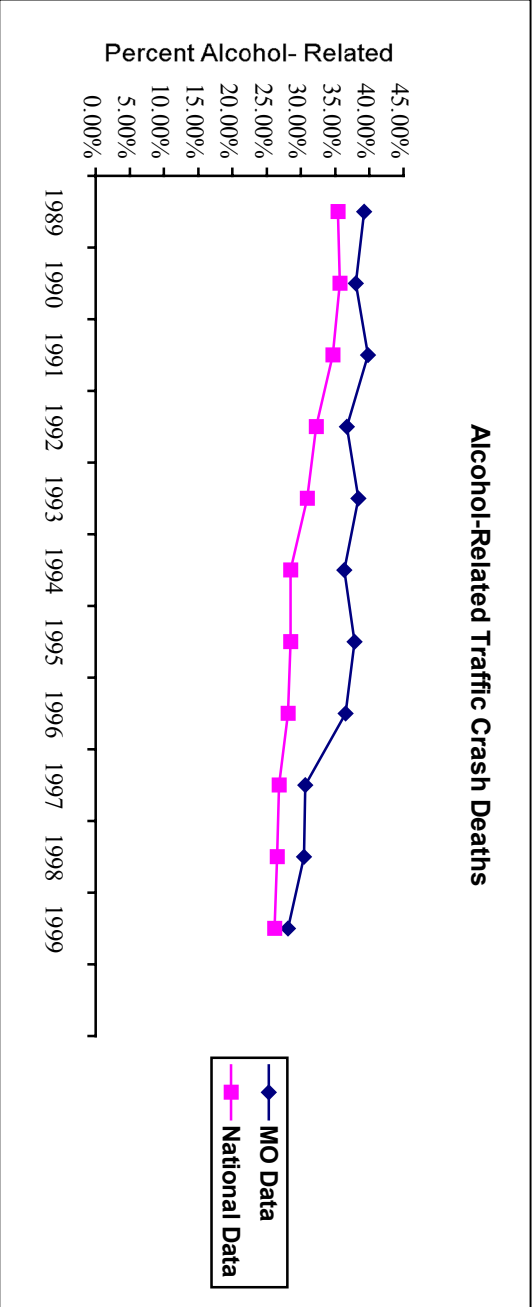
Other Sources of Information

- 1. Traffic Crash Facts Booklet- Missouri State Highway Patrol, Traffic Division
- 2. Missouri Vital Statistics- State Center for Health Statistics
- 3. Missouri State Highway System Traffic Accident Statistics- Missouri Department of Transportation, Traffic Division

Key Objective: Reduce the incidence of alcohol-related injuries by 5%, from 6,290 in 2000 to 5,975 by January 2, 2004.



Data Table for Objective Measure



Number of People Injured in Alcohol-Related Traffic Crashes

Year	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MO Data	7,576	7,861	8,689	7,835	7,697	7,603	7,528	7,333	7,106	6,776	6,348	6,283	6,290

Percent of People Killed in Alcohol-Related Traffic Crashes

Year	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MO Data	39.2%	38.0%	39.8%	36.7%	38.4%	36.3%	37.8%	36.5%	30.6%	30.4%	28.1%
National Data	35.4%	35.7%	34.6%	32.2%	30.9%	28.5%	28.5%	28.1%	26.8%	26.5%	26.1%

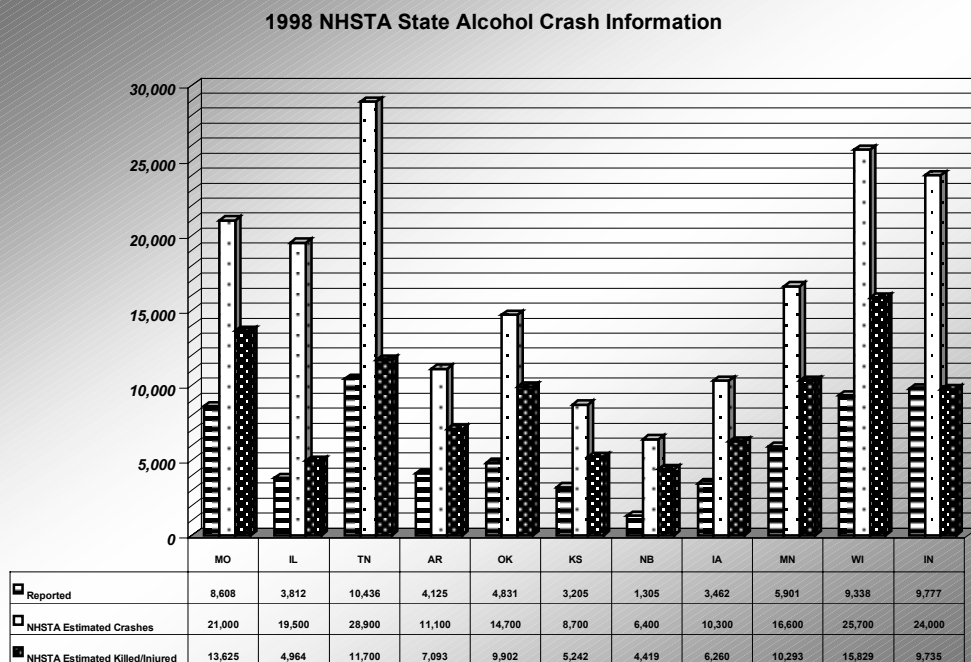
Why This Objective Measure Is Important

This measure is an indicator of how alcohol related traffic crashes kill and injure motorists in Missouri. It is also an indicator of the effectiveness of laws related to intoxicated driving, enforcement programs designed to remove intoxicated drivers from Missouri roadways, and public awareness programs aimed at reducing the incidence of alcohol related traffic crashes in the state.

Trend Analysis

- Over 8,300 alcohol related traffic crashes occur annually in Missouri.
- Over the past four years 2.5% of the alcohol related traffic crashes resulted in the death of one or more persons. During this same four year time period, 47.6% of the alcohol related traffic crashes resulted in personal injuries to one or more persons.
- Of all traffic crashes that occurred in Missouri during 1999 and 2000, 4.6% were drinking related.
- During 1998, 1999, and 2000, an alcohol related traffic crash that produced an injury or fatality occurred every 1.3 hours.
- During 1998, 1999, and 2000, 22.6% of all fatal accidents were drinking related.

How Missouri Compares to Others



According to the National Highway Traffic Safety Administration (NHTSA), in 1998 Missouri reported 8,608 crashes involving a driver or pedestrian with a positive blood alcohol concentration (BAC). NHTSA has developed crash formulas to **estimate** the number of alcohol-related crashes where alcohol involvement was not reported by law enforcement agencies. **NHTSA estimated** 21,000 alcohol related traffic crashes occurred in Missouri during 1998. NHTSA figures also indicated 13,625 people were injured or died in alcohol related traffic crashes during 1998. NHTSA alcohol crash information from other states is shown on the above chart. The ten other jurisdictions selected for comparison included the seven adjoining states along with Indiana, Minnesota, and Wisconsin. Missouri had the fourth highest reported and estimated incidence of alcohol related crashes of the eleven states selected. Missouri had the second highest rate of persons injured and killed as a result of alcohol-involved crashes, **according to NHTSA estimates** of the eleven selected states. Only Wisconsin had a higher **estimated** injury and death rate for alcohol involved traffic crashes.

Factors Influencing the Objective Measure

The Missouri State Highway Patrol is the central repository for all traffic accident records in the state. The Statistical Analysis Center of the Missouri State Highway Patrol performs an analysis of the information contained in the submitted reports. The statistics related to actual incidences of alcohol related crashes in Missouri are believed to be very accurate. Differences in reporting criteria may reduce the reliability of the information actually reported to NHTSA and the estimates derived from the reported information; however, NHTSA is the only national source available for comparison purposes. Difficulties involved in the detection of intoxicated drivers and intoxicated drivers who leave accident scenes, are factors to consider when determining the accuracy of alcohol related traffic crash measurements in Missouri.

What Works

- Laws to deter the incidence of intoxicated driving and the adjudication of individuals arrested for DWI related offenses.
- Enforcement of laws related to intoxicated driving by all Missouri law enforcement officers.
- Detection of intoxicated drivers before a crash occurs.
- Education of officers in standardized field sobriety testing and the use of preliminary breath testing devices.
- Cooperative enforcement efforts involving state, county and local agencies in sobriety checkpoints and saturation enforcement programs.
- Cooperative efforts to unify Missouri law enforcement agencies in pooling their resources to save lives and reduce injuries caused by alcohol related traffic crashes.
- Law enforcement agencies and other organizations such as Mothers Against Drunk Driving (MADD) provide information to the public to reduce the incidence of intoxicated drivers.
- Educating Missourians about the dangers and consequences of intoxicated driving.

Concerns

The consequences of not addressing the public safety responsibilities associated with reducing alcohol related traffic crashes include:

- Additional loss of life and property.
- Adverse economic impact (increased insurance rates, lost work time, and loss of tourism).
- Decreased safety improvements in the state transportation system.
- Increased fear of involvement in a traffic crash on Missouri roadways.

Other Sources of Information

Federal or National Resources

1. The National Highway Traffic Safety Administration website, www.nhtsa.gov
2. The Mothers Against Drunk Driving website, www.MADD.org
3. The National Transportation and Safety Board – www.nts.gov/
4. Insurance Institute for Highway Safety – www.highwaysafety.org/

State Resources

The Missouri Traffic Safety Compendium, Missouri State Highway Patrol, Statistical Analysis Center, P.O. Box 568 - 1510 East Elm Street, Jefferson City, Missouri 65102.

Description of the Objective Measure

Injured Missouri Data: The number of people **injured** in traffic accidents where drinking was involved based upon police officer observation at the time of the accident report. The data is from the Missouri Traffic Compendium from the Missouri State Highway Patrol.

Killed National and Missouri Data: The percent of total people **killed** in traffic crashes where the highest driver blood alcohol content was .10 or greater. Data are from the "Fatality Analysis Report System (FARS)" from the National Highway Traffic Safety Administration. National Data: Same as Missouri data.

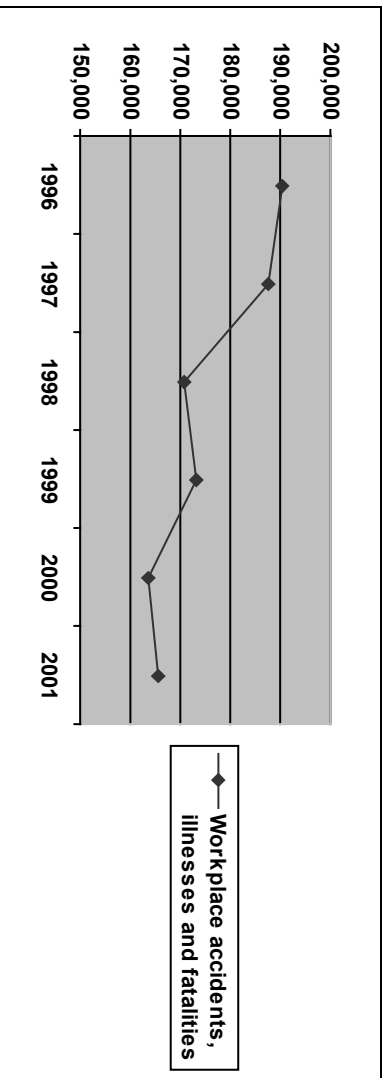
Key Strategies

1. Provide training programs that focus on factors contributing to: speed, commercial motor vehicle violations, construction/work zone crashes, and alcohol-related violations.
2. Provide safety programs that focus on factors that contribute to: speed, commercial motor vehicle violations, construction/work zone crashes, and alcohol-related violations. Work with and seek input from appropriate groups on the issue of crashes involving drivers 55 and older and 21 and younger.
3. Provide enforcement activities that focus on: speed, commercial motor vehicle violations, construction/work zone crashes, and alcohol-related violations. Work with and seek input from appropriate groups in the development and implementation of specific enforcement activities, which focus on crashes involving drivers 55 and older and 21 and younger.

EXAMPLE

**Department of Labor and Industrial Relations
Strategic Plan**

Key Outcome: Reduced job related accidents, illnesses and fatalities



SOURCE: Division of Workers' Compensation, Department of Labor and Industrial Relations

Why This Measure Is Important

Unsafe workplace practices endanger the health and safety of Missouri's workforce and can hinder the educational opportunities and development of working children.

In 2000, over 150 people lost their lives in Missouri workplaces and approximately 163,000 were injured. The five industries with the highest number of nonfatal occupational injuries in Missouri in 1999 were health services, special trade contractors (construction), transportation equipment (durable goods, manufacturing), business services, and eating and drinking places. Improving working conditions throughout Missouri will contribute to a decrease in work related injuries.

Trend Analysis

There has been a significant reduction of injuries in Missouri workplaces over the last five years. This reduction in workplace injuries has occurred even though a booming economy added workers to the labor market. The 14 percent decrease in workplace injuries since 1996 is a result of several factors. First, the legislative reforms in 1993 made significant changes in the workers' compensation law, particularly safety, which encouraged employers and workers to take a close look at their safety programs and incorporate safety features into their workplaces. Second, the positive trend in injuries is further stimulated by the work of the safety programs offered through the Department's three safety and health programs; On-Site Safety and Health Consultation, Mine and Cave Safety and Health Training and Inspection and Missouri's Workers' Safety. By removing or controlling identified safety and health hazards in the workplace, employers are able to reduce likely Federal Occupational Safety and Health Administration (OSHA) and Mine Safety and Health Administration (MSHA) fines. Third, the educational efforts of the Department have provided employers and workers with an important source of information to help them achieve their safety goals. The reduction of workplace hazards results in fewer accidents, which contributes to lower workers' compensation premium costs and improves employee productivity, product quality and job satisfaction.

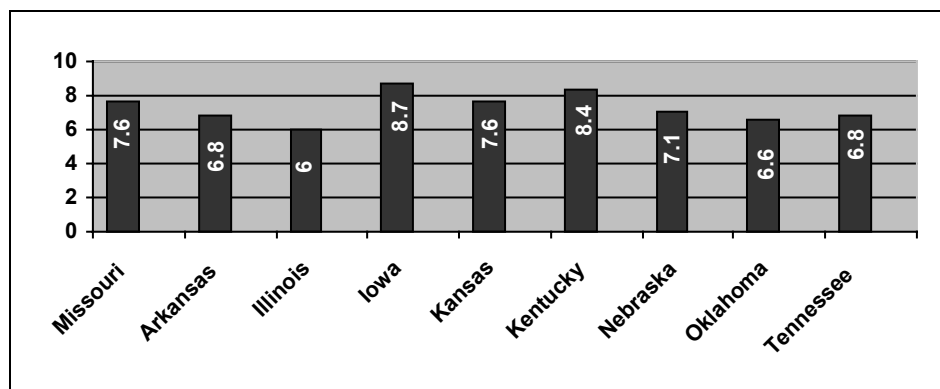
Factors Influencing the Measure/Concerns

Although the number of injuries in the workplace has reduced over the past five years, workplace safety continues to be a challenge for Missouri businesses. Compliance with OSHA regulations is especially challenging for small businesses in Missouri. The Department offers three safety and health programs to combat workplace injuries, however these programs are voluntary for Missouri employers. Under the On-Site Consultation Program, the Department has no statutory authority to

enter a business uninvited, inspect for workplace hazards or assess fines. In addition, one of the safety programs is mandated to only visit businesses that employ 250 or fewer employees. This significantly reduces the number of potential businesses to visit.

How Missouri Compares to Others

According to the Bureau of Labor Statistics (BLS), US Department of Labor, Missouri is comparable with neighboring states in nonfatal occupational injury and illness incidence rates. The graph below indicates the incidence rates of occupational injuries and illnesses per 100 full-time workers, in private industry in 1999.



SOURCE: Bureau of Labor Statistics, US Department of Labor

What Works

Providing training and educational information to Missouri employers has proven to increase workplace safety. Offering a no-cost, no-fine, on-site consultation visit protects Missouri's workers while assisting employers (many with fewer than 250 employees) to stay competitive in the changing marketplace.

The safety programs within the department have shown a nominal increase in the number of safety and health hazards identified and abated. This has been accomplished through a concentrated effort by the programs to visit the highest hazard industries, which are shown to have high rates of accidents and illnesses.

Data Table

Number of job related accidents, illnesses and fatalities

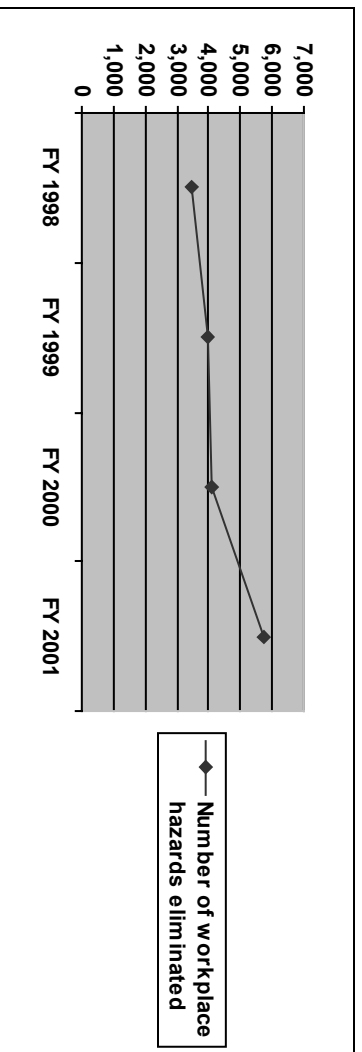
Year	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
	190,247	187,425	170,727	173,079	163,540	165,698

SOURCE: Injury Processing Report, Missouri Department of Labor and Industrial Relations

Description of Measure

This measure represents the total number of First Reports of Injury received by the Division of Workers' Compensation, Missouri Department of Labor and Industrial Relations.

Key Objective: Increase the number of workplace hazards eliminated from 5,751 to 5,983 by FY 2003 resulting in cost savings for Missouri businesses.



SOURCE: Division of Labor Standards, Missouri Department of Labor and Industrial Relations

Why This Measure Is Important

Missouri's businesses become safer through the identification and elimination of workplace hazards. In the last four years, over 17,000 workplace hazards have been identified and eliminated. The safety programs provided by the Department assist employers in complying with complicated federal OSHA/MSHA regulations. Professionally trained safety and health consultants, inspectors and trainers must continue to provide consultations and training to employers in an effort to continue to reduce the number of workplace accidents, illnesses and fatalities.

Trend Analysis

Since 1998, the number of workplace hazards eliminated increased 66 percent. The identification and elimination of workplace hazards has resulted in the potential to lower workers' compensation premium costs and has improved employee productivity, product quality and job satisfaction.

Over the last three years, the department has helped employers realize a possible cost savings of nearly \$7.5 million by the recommended hazard abatements.

Factors Influencing the Measure

1. Willingness of employers to abate identified hazards.
2. Ability to encourage employees to buy into their responsibilities for workplace safety and health.
3. According to Chapter 293, RSMo., the Department's Mine and Cave Inspection Program is limited to specific mines. This limits the program's exposure in the mining community.
4. OSHA limits the On-Site Safety and Health Consultation Program's customer base. They are required to service primarily high-hazard, small employers. OSHA chooses the high hazards, which do not necessarily reflect what is actually occurring in Missouri.

How Missouri Compares to Others

No other states measure the number of hazards identified and abated in mining. This is strictly a measure developed by the Missouri Department of Labor and Industrial Relations, Division of Labor Standards. MSHA only measures penalties assessed, not fines avoided.

What Works

Increased intensity and frequency of inspections and consultations and outreach focused to specific target audiences continue to positively impact the reduction of workplace hazards.

Concerns

The Department's On-Site Safety and Health Consultation Program is mandated to only visit businesses that employ 250 or fewer employees. This significantly reduces the number of potential businesses to visit.

The safety and health programs offered to Missouri's employers through the Department's Division of Labor Standards are funded through Cooperative Agreements with the U.S. Department of Labor. Therefore, these programs must conform to requirements listed in the Cooperative Agreements for the fiscal years under contract. OSHA/MSHA, as the contractor, has the right to set or change program requirements when or if they deem necessary.

The formula used to calculate the "fines avoided measure" is highly dependent on the previous year's activities of OSHA/MSHA citations. When their average dollar fine per hazard decreases in a given year then the total amount of cost savings will also decrease accordingly, as seen in fiscal year 2000.

Data Table

Year	Actual				Projected		
	FY 1998	FY 1999	FY 2000	FY 2001	Target	FY 2002	FY 2003
Number of OSHA/MSHA hazards eliminated	3,462	3,977	4,080	5,751	2%	5,866	5,983
Amount of OSHA/MSHA fines avoided	\$2,100,000	\$2,910,040	*\$2,448,190	\$3,070,419	2%	\$3,131,827	\$3,194,464

SOURCE: Division of Labor Standards, Missouri Department of Labor and Industrial Relations

*In 2000, OSHA decreased the average dollar fine per hazard.

Description of Measure

The dollar amount of MSHA fines is determined by multiplying the number of hazards found and abated by the average cost of a cited MSHA violation, which is \$275.00.

The dollar amount of OSHA fines is determined by multiplying the number of hazards found and abated by the average cost of an OSHA violation, which is \$827.00.

Key Strategies

1. Increase the number and intensity of consultations, inspections and educational sessions conducted and number of customers receiving written information.
2. Increase staff's ability to more efficiently address constituent requests and complaints through continued cross training and reclassification of Mine and Cave Instructors and Inspectors.
3. Target On-Site solicitations to the five highest hazard industries and three most hazardous types of work.
4. Provide extensive training for On-Site consultants in current OSHA inspection procedures and priorities.
5. Encourage employers to correct serious hazards identified in a prompt manner.
6. Increase the perception of the value of labor in Missouri.